

ORIGINAL

IN THE UNITED STATES DISTRICT COURT

APPEARING: FOR THE NORTHERN DISTRICT OF ILLINOIS

EASTERN DIVISION

For the Plaintiff:

BALLY MANUFACTURING CORPORATION,

Plaintiff,

vs.

D. GOTTLIEB & CO.,
WILLIAMS ELECTRONICS, INC., and
ROCKWELL INTERNATIONAL CORPORATION,

Defendants.

CIVIL ACTION NO.
78 C 2246

H. STUART CUNNINGHAM, CLERK
UNITED STATES DISTRICT COURT

FILED
OCT 10 1979

BALLY MANUFACTURING CORPORATION,

Plaintiff,

CIVIL ACTION NO.
79 C 713

For vs. defendants:
D. GOTTLIEB & CO.,
GAME PLAN, INCORPORATED and
ASTRO GAMES, INC.,

Defendants.

BOOKETED

OCT 30 1979

DEPOSITION UPON ORAL EXAMINATION
OF
COLIN EDWIN FOSTER

Taken on behalf of Plaintiff
At Las Vegas, Nevada
October 5, 1979
10:00 a.m.

Reported by: E. Ann Quinn, C.S.R. #115

APPEARING: BE IT REMEMBERED that, under the provisions of
the Federal Rules of Civil Procedure and pursuant to Notice

For the Plaintiff: FITCH, EVEN & TABIN of COLIN
135 South La Salle Street
Chicago, Illinois 60603
BY: A. SIDNEY KATZ, ESQ.

action, was taken before me, E. ANN and
DONALD L. WELSH, ESQ.

Notary Public in and for the County of Clark, State of Nevada

For COLIN E. FOSTER: DRESSLER, GOLDSMITH, CLEMENT,
GORDON & SHORE, LTD.
1800 Prudential Plaza
Chicago, Illinois 60601
BY: GERSON E. MEYERS, ESQ.

at the law offices of Ashleman & Sweeney, 300 South La Salle

For Defendant WILLIAMS
Street, Suite ELECTRONICS: McDOUGALL, HERSH & SCOTT
135 South La Salle Street
Chicago, Illinois 60603
BY: WILLIAM T. RIFKIN, ESQ.

Said witness has signed the foregoing, and the same is true to the best of his knowledge and belief.

For Defendants
D. GOTTLIEB & CO. and
ROCKWELL INTERNATIONAL

CORPORATION: ARNOLD, WHITE & DURKEE
2100 Transco Tower
Houston, Texas 77056
BY: WAYNE M. HARDING, ESQ.

interrogated, and the answers thereto are set forth in the

therein, and the same are true to the best of his knowledge and belief.

following:

Exhibit A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.

BE IT REMEMBERED that, under the provisions of the Federal Rules of Civil Procedure and pursuant to Notice of Taking Deposition and Subpoena, the deposition of COLIN EDWIN FOSTER, called as a witness by the Plaintiff in said action, was taken before me, E. ANN QUINN, C.S.R. #115, a Notary Public in and for the County of Clark, State of Nevada, duly commissioned, qualified and acting on the 5th day of October, 1979, beginning at the hour of 10:00 o'clock a.m., at the law offices of Ashleman & Sabbath, 300 South Fourth Street, Suite 1505, in the City of Las Vegas, County of Clark, State of Nevada. Colin Edwin Foster. 5672 South Pecos Road, Said witness was by me first duly sworn to testify to the truth, the whole truth and nothing but the truth in the testimony he was about to give in the before-entitled matter; whereupon said witness was examined upon oral interrogatories propounded by counsel and made answers in, thereto, under oath, as hereinafter contained, and the following proceedings were had: edure. That's in accordance

with Examination by MR. KATZ: Page No. 1

Plaintiff's Exhibit BD 100 + 101 re Page No. 2 w that
this Plaintiff's Exhibit BD 102 pursuant Page No. 62 d

Subpoena Plaintiff's Exhibit BD 103 Page No. 83

MR. ATKIN: With documents attached, I presume.

MR. KATZ: The subpoena is a subpoena duces

1 tecum requesting certain documents to be brought by the
 2 C O L I N E D W I N F O S T E R, having been first duly
 3 Notice sworn by the Notary Public to tell the truth, the
 4 court whole truth and nothing but the truth, testified as
 5 Exhibit follows:

6 MR. RIFKIN: Mr. Katz, why don't we see what
 7 you provided the court EXAMINATION: viciously because I don't
 8 have those rules, and I'd like the reporter to mark as

9 BY MR. KATZ: Exhibit BD 101 a copy of the subpoena served
 10 on Mr. Q. Mr. Foster, would you state your full name and
 11 address for the record, please. Exhibits BD 100 and PD 101

12 marked A for My name is Colin Edwin Foster. 5631 South
 13 Pecos Road, Las Vegas, Nevada 89120. you appearing here

14 as attorney MR. KATZ: For the record, I'd like the record
 15 to show that in accordance with local Rule 18a of the U.S.
 16 District Court for the Northern District of Illinois,

17 Eastern Division, I am providing the reporter, Miss Quinn,
 18 with copies of the Federal Rules 28, 29, 30 c through f of
 19 the Federal Rules of Civil Procedure. That's in accordance
 20 with our law. What is your formal educational background after

21 high school? Also, I'd like the record to show that
 22 this deposition is being taken pursuant to Notice and is from
 23 Subpoena -- ity of New South Wales in Australia. I have

24 various other MR. RIFKIN: With documents attached, I presume.

25 engineering MR. KATZ: The subpoena is a subpoena duces ones.

1 tecum requesting certain documents to be brought by the
2 witness, Mr. Foster. I'd like the reporter to mark the
3 Notice of Deposition which was served on the Defendants'
4 counsel on September 20, 1979, as Plaintiff's Deposition
5 Exhibit BD 100.

6 MR. RIFKIN: Mr. Katz, why don't we see what
7 you provided the court reporter previously because I don't
8 have those rules, and I'd like the reporter to mark as
9 Plaintiff's Exhibit BD 101 a copy of the subpoena served
10 on Mr. Foster.
11 (Plaintiff's Exhibits BD 100 and BD 101
12 marked for identification.)

13 MR. KATZ: Mr. Meyers, are you appearing here
14 as attorney for Mr. Foster?

15 MR. MEYERS: That's right.

16 Q (BY MR. KATZ) Mr. Foster, how old are you?

17 A I'm 40.

18 Q When were you born?

19 A May 17, 1939.

20 Q What is your formal educational background after
21 high school?

22 A I have a bachelor of Electrical Engineering from
23 the University of New South Wales in Australia. I have
24 various other courses I have completed, industrial
25 engineering, computer programming. They are the major ones.

1 Q Where were those courses completed?

2 A Industrial Engineering was the University of
3 New South Wales. Computer programming course was at a
4 company called Sigma in California.

5 Q There was a course sponsored by Sigma Corporation?

6 A Yes. I graduated from Parramatta High School.

7 Q When did you receive your bachelor's in
8 Electrical Engineering from the University of New South
9 Wales?

10 A Within a couple of years -- between 1963 and
11 1965, about that time. That's off the top of my head. I
12 wouldn't guarantee it.

13 Q Were you employed after receiving your
14 bachelor's degree?

15 A Yes.

16 Q Where were you employed?

17 A At the time of receiving the degree, I was
18 employed by the Post Master General's Department in
19 Australia.

20 Q And in what capacity?

21 A As an electrical engineer after graduation.

22 Q When did you first become employed by the Post
23 Master General's Department in Australia?

24 A About five years prior to graduation.

25 Q Do you have any way to fix that date,

1 approximately? At least the year date?

2 A I gave the date of graduation as '63 or '65.
3 So five before would be '58 to '60.

4 Q Did you have any formal schooling before you
5 entered the University of New South Wales?

6 A Yes. I graduated from Parramatta High School.

7 Q Do you remember the year of that graduation?

8 A No, I don't.

9 Q Did you enter the University of New South Wales
10 immediately upon graduation from high school?

11 A The following year, yes.

12 Q As an electrical engineer for the Post Master
13 General's Department in Australia, what were your duties,
14 generally?

15 A After graduation, my primary duties were as
16 research engineer in the switching laboratories in Sidney.

17 Q What kind of projects did you work on as a
18 research engineer?

19 A I was developing automated test equipment for
20 their telephone apparatus that they used.

21 Q Did you work on any other projects while you
22 were with the Post Master General's Department other than
23 working on automated test equipment for the telephone?

24 A Yes, I worked on numerous projects. I don't
25 have any recollection of the details of them.

1 Q Do you have any recollection of the general
2 nature of the projects?

3 A In general, they were the design of
4 instrumentation equipment. That was the general nature of
5 my work.

6 Q What do you mean by "instrumentation equipment"?
7 as soon as you
8 A In general, the automatic equipment for testing
9 the performance of telephones and telephone systems.

9 Q Were these automatic telephone systems?

10 A Yes. I was designing gambling equipment.

11 Q And the automatic telephone systems used in
12 Australia in the area around Sidney?

13 A Yes. slot machines.

14 Q For how long were you employed by the Post
15 Master General's Department after graduation?

16 A I don't remember specifically. A couple of
17 years. A It's a system whereby a number of slot machines

18 are connected together where each
19 machine is contributing towards a common jackpot which is

20 available. A No.

21 Q Would it have been about 1962 or so?

22 A That would not be unreasonable.

23 Q Then where were you employed?

24 A I was employed by Blacklock. electronics.

25 Q "Blacklock"?

A That's one word, Blacklock.

1 Q "Blackrock"??

2 A No, lock, l-o-c-k.

3 Q Where are they located? lock Industries?

4 A They are located in Lane Cove in the Sidney area
5 in Australia. were you working with anyone else there in

6 conner Q Did you become employed by Blacklock Industries
7 as soon as you left the Post Master General's Department?

8 me. A Yes.

9 Q And what were your duties there?

10 A I was designing gambling equipment. al title. I

11 was in Q char What kind of gambling equipment? vendor of that

12 project A. Essentially progressive jackpot computers for
13 slot machines. were the inventor of the project?

14 Q Progressive jackpot computers for slot machines?

15 A Yes. any patent application ever filed on that

16 project Q? What is that?

17 A It's a system whereby a number of slot machines
18 are connected together on this computer system where each
19 machine is contributing towards a common jackpot which is
20 available. ~~It could be either the first machine connected~~
21 ~~to be won by~~ to it to line up a particular group of symbols. cf

22 Q And what did these systems consist of? ers

23 named A so? A large amount of complex electronics.

24 Q Were those commercially sold?

25 A Yes. you know approximately when that patent

1 Q In Australia? this progressive jackpot computer

2 A Yes.

3 Q Were they sold by Blacklock Industries?

4 A Yes.

5 Q Were you working with anyone else there in
6 connection with the design of this gambling equipment?

7 A I had engineers and technicians working under
8 me.

9 Q What was your position there?

10 A I don't remember if I had an official title. I
11 was in charge of that project. I was the inventor of that
12 project.

13 Q You were the inventor of the project?

14 A Yes.

15 Q Was any patent application ever filed on that
16 project?

17 A Yes.

18 Q Do you know if a patent was ever granted on it?

19 A Yes, it was.

20 Q Was that granted naming you as the inventor?

21 A Yes.

22 Q Were you the sole inventor, or were others
23 named also?

24 A I was the sole inventor.

25 Q Do you know approximately when that patent

1 application was filed on this progressive jackpot computer
2 for slot machines?

3 A I would estimate somewhere in the period 1962
4 to 1964. Somewhere in there.

5 Q Do you have a copy of that patent?

6 A I don't think so.

7 Q Was it also filed in other countries other than
8 Australia?

9 A Yes. Were you self-employed?

10 Q Was it filed in the United States?

11 A So far as I remember, it was. Las Vegas, Nevada?

12 Q Do you know if it was granted in the United
13 States? Do you recall when that was? Was that 1968?

14 A So far as I remember, it was.

15 Q Did you do anything else other than this work
16 on the progressive jackpot computer while you were at
17 Blacklock Industries?

18 A Nothing of significance. Employed when I first

19 arrived here. Q Were any other applications filed on other work
20 that you did there?

21 A Not that I remember. By Blacklock Industries in

22 Australia. Q Had you been granted any patents prior to the
23 patent that you were granted on the progressive jackpot
24 computer?

25 A No. We brought some of the gambling equipment



1 that Q had When did you leave Blacklock Industries? to

2 opera A it About three or four years after the time we are
3 talking about in developing it. I suppose that would make
4 it 1965 to 1968. Somewhere in there.

5 Q Were you employed after leaving Blacklock
6 Industries? You were still head of this progressive gambling

7 project A I was self-employed after leaving Blacklock
8 Industries. Yes.

9 Q Where were you self-employed? ing this here to
10 Las Vegas? A In Las Vegas, Nevada.

11 Q You left Australia and came to Las Vegas, Nevada?
12 the A Yes. had developed in Australia.

13 Q Do you recall when that was? Was that 1968?

14 A No, it was more like 1965.

15 Q In approximately 1965 you came, then, from the
16 Sidney, Australia, area to Las Vegas, is that right, and
17 became self-employed? Blacklock Industries an actual

18 manufacture A No, I was not self-employed when I first
19 arrived here. Yes.

20 Q Where -- weren't merely designers; is that right?

21 A I was still employed by Blacklock Industries in
22 Australia. Were any of these progressive jackpots computers

23 that Q Had you come here pursuant to some company
24 assignment? They were leased.

25 A Yes. We brought some of the gambling equipment

1 that we had developed in Australia over to Las Vegas to
 2 operate it in this country.

3 Q What was your position at that time with
 4 Blacklock Industries?

5 A It hadn't changed.

6 Q You were still head of this progressive gambling
 7 project?

8 A Yes.

9 Q What was your purpose for bringing this here to
 10 Las Vegas?

11 A Las Vegas appeared to be a major market for
 12 the equipment we had developed in Australia.

13 Q And you were attempting to see it here?

14 A Yes.

15 Q Was that to casinos?

16 A Yes.

17 Q And was Blacklock Industries an actual
 18 manufacturer of this equipment?

19 A Yes.

20 Q They weren't merely designers; is that right?

21 A No, they were manufacturers and designers.

22 Q Were any of these progressive jackpots computers
 23 that you designed actually sold here?

24 A They were leased.

25 Q They were leased to casinos?

1 A Yes.

2 Q Do you recall any casinos that leased the
3 equipment?

4 A The Golden Nugget was our major customer.

5 Q In Las Vegas?

6 A Yes.

7 Q Did you have any other significant customers
8 for it?

9 A No.

10 Q Do you know if the Golden Nugget Casino still
11 has one of your progressive jackpot computers?

12 A No, they don't.

13 Q Do you know what happened to it?

14 A They were destroyed.

15 Q Do you know what occasioned their destruction?

16 A I was leaving the area. The lease had terminated.
17 It wasn't worth carting the equipment around with me. I
18 just dropped them in the city dump.

19 Q When was that?

20 A Approximately 1966 I would say.

21 Q About a year after you came?

22 A That seems reasonable. More like 18 months
23 after.

24 Q Was your employment terminated by Blacklock
25 Industries?

1 was A. No. I resigned.

2 Q Why did you resign?

3 A It was the president of Blacklock Industries'
4 impression that there wasn't sufficient market over here
5 to continue the operation, and he suggested returning to
6 Australia. I requested to remain in this country and areas
7 resigned in order to do so. any or business-confidential,
8 please Q. Was it at that point that you became self-employed
9 employed in Las Vegas? to areas which you feel are sensitive
10 to you A. Yes..

11 Q What was your business as a self-employed person?

12 A My I would say consulting in gambling equipment.

13 Q Consultant on gambling equipment?

14 A Yes. MR. KATZ) He represented some group?

15 Q To whom were you a consultant?

16 A That's difficult to say. engage in in connection
17 with you Q. Did you have any principal customers for your

18 consulting services? I was designing horse racing gambling
19 equipment. Ant. Yes.

20 Q Do you recall who those principal customers
21 were? Ant.?

22 A I am not sure at this time what their physical
23 organization was, whether I was consulting for an individual
24 or a corporation as an outside consultant. I was never fully
25 informed of what the structure of the company was that I

1 was dealing with.

2 Q Who was that company?

3 A I don't know. finished?

4 Q Who were the persons --

5 Q MR. MEYERS: May I interrupt and instruct the
6 witness that if any of the questions are getting into areas
7 which you feel are proprietary or business-confidential,
8 please advise because there is no necessity to and I don't
9 think you should get into areas which you feel are sensitive
10 to your business. a film. That was the essential difference.

11 Q THE WITNESS: I'll answer the question in
12 general. My main contact with this group was through a
13 man called Fred Colia. company?

14 Q (BY MR. KATZ) He represented some group?

15 A Yes. racing equipment, was that a computer operated game?

16 Q What activities did you engage in in connection
17 with your consulting work for Fred Colia's group? computer as

18 such. A Basically I was designing horse racing gambling
19 equipment. Did it use solid state electronics?

20 Q What do you mean by "horse racing gambling
21 equipment"? Did it have a logic system?

22 A This particular equipment showed a film of a
23 horse race in response to betting on the machine resulting
24 in possible winners and payoffs.

25 Q Did you ever do any design work on such a

1 machine? Essentially RTL.

2 A Yes. Was it a programmable system?

3 Q Was it ever finished?

4 A Yes. Was it software programmable?

5 Q Did it become a commercial piece of equipment?

6 A Not in the form that I built -- not in the form
7 that I designed it.

8 Q In what form?

9 A It was later changed to a video source for the
10 race rather than a film. That was the essential difference.

11 Q Did this occupy most of your time as a
12 consultant after you left the Blacklock Industries company?

13 A Yes. then, by one means or another, you implement that program

14 Q And in the form that you designed the horse
15 racing equipment, was that a computer operated game?

16 A It depends on your definition of "computer." It
17 certainly did not use a commercially purchased computer as
18 such.

19 Q Does software programmable have any other meaning
20 to you?

21 A Oh, yes. that's the principal meaning of it.

22 Q Did it have a logic system?

23 A Yes. piece of equipment that performed a series of functions

24 Q Did it use some type of logic?

25 A Yes.

Q What type of logic did it use?

1 A Essentially RTL.

2 Q Was it a programmable system?

3 A To some extent.

4 Q What is software programmable?

5 A It depends on what you mean by "software
6 programmable."

7 Q Does that have any meaning to you?

8 A Yes, it does.

9 Q What does it mean?

10 say. A Software programmable means that prior to
11 building it you write down a program on a sheet of paper
12 which is essentially what you want the machine to do and
13 then, by one means or another, you implement that program
14 on the machine.

15 Q In accordance with that definition, it was;
16 is that right? I think I used Computote America, Limited.

17 That may not be quite correct, but something like that.
18 A To some extent.

19 Q Does software programmable have any other meaning
20 to you? Yes.

21 A I think that's the principal meaning of it.

22 Q By taking that meaning, wouldn't almost any
23 piece of equipment that performed a series of functions
24 fit that definition?

25 A No. I think so.

Q After completing this work on the horse racing

1 gambling equipment, did you start any other projects as a
2 consultant, self-employed consultant?

3 A Yes. was the blackjack machine that you referred

4 to? Q What were those?

5 A It wasn't really as a self-employed consultant.
6 I started developing a blackjack machine for my own
7 personal enterprise. line was never completed. It was -- at

8 that time I was doing a lot of experiments and evaluations

9 to see if a A Approximately 1967, 1968, in that area I would
10 say. iminary design work on a machine.

11 Q But that was as a self-employed person? ther such

12 a machine could be built? A Yes.

13 Q Did you have a name that you went under with
14 respect to that work, a business name?

15 A I think so. Just a moment. I will recall it.

16 Q When d I think I used Computote America, Limited.
17 That may not be quite correct, but something like that.

18 Q Was that a self-proprietorship of yours?

19 A Yes. evaluation was being done.

20 Q It was not a corporation? whether it was

21 feasible to A No, it was not. cost or feasible with certain

22 restriction: Q Did you use that business name also when you
23 were doing the consulting work for Fred Colia's group?

24 produ A I think so.

25 Q That would have been, then, beginning in 1965

1 or so; is that right?

2 A Approximately.

3 Q What was the blackjack machine that you referred
4 to? A I did not have the financing to support the

5 viable product. A It was a blackjack machine.

6 Q What did it consist of? A It was a machine that would be sold to anybody that might

7 have the financing. A The machine was never completed. It was -- at
8 that time it was a series of experiments and evaluations
9 to see if a blackjack machine could be built and the
10 preliminary design work on a machine.

11 Q Did you reach any conclusions as to whether such
12 a machine could be built?

13 A Yes, I did. Q What was the conclusion? A The design and

14 manufacture of the machine was not feasible. A I concluded it could have been built.

15 Q When did you reach that conclusion? A I was employed as
16 a consultant to the company under the name of Compro-America, Limited,
17 approximately '68?

18 name? A Towards the end of that period when the
19 evaluation was being done.

20 Q Were you just determining whether it was
21 feasible to be built at any cost or feasible with certain
22 restrictions or under certain conditions?

23 A I was determining whether it was a viable
24 product.

25 Q And your determination was that it was a viable

1 product?

2 A Yes.

3 Q Did you then make it as a product?

4 A I did not have the financing to support the
5 viable product.

6 Q Did you try to sell that to anybody that might
7 have the finances?

8 A Yes, I did.

9 Q Who were those people?

10 A Bally Manufacturing.

11 Q Anyone else?

12 A No.

13 Q What was Bally Manufacturing's response?

14 A We entered a contract for the design and
15 manufacture of the game.

16 Q Under that contract, were you being employed as
17 a sole proprietorship under the Comptote-America, Limited,
18 name?

19 A No.

20 Q As an individual?

21 A I was not employed by Bally. I was still, I
22 guess, a consultant to Bally.

23 Q And you were consultant as an individual; is
24 that right?

25 A That's correct, yes.

1 Q What did you do pursuant to that contract?
2 What work did you do? who they were.

3 A I commenced the design work on the blackjack
4 game. A No.

5 Q Where did you do that work? it was not completed?

6 A In Chicago. never told.

7 Q Where in Chicago? become aware of the fact that

8 A At the Bally Manufacturing Plant on Belmont
9 Avenue. I don't know the date. It was approximately --

10 Q When was that?

11 A Approximately 1968. I -- I could be wrong in
12 that date. year.

13 Q What specifically did you do in connection with
14 that design work of the game at the Chicago facility?

15 A I did technical drawings, software preparation,
16 prototype assembly work, testing work, cabinet design, etc.

17 Q Who did you work in association with there?

18 A I was working on my own. And at that time

19 Bally had gone for high volume

20 products. Yes, I reported to Joe Lally. fit their

21 production. Q Anyone else?

22 A He was my immediate superior. Indirectly I
23 guess I reported to people above him.

24 Q Did anyone report to you? Were there any Bally
25 employees provided to work with you?

1 A I possibly had people available. I don't
2 remember at this time who they were. at presented the cards.

3 Q Was this blackjack machine ever completed?

4 A No. it-flap indicators.

5 Q Do you know the reason why it was not completed?

6 A No. I was never told. communications.

7 Q When did you first become aware of the fact that
8 it wasn't going to be a completed project?

9 A I don't know the date. It was approximately --

10 Q A year later? After this project was dropped
11 or terminated? Six or eight months after starting the project.
12 Perhaps a year. that right?

13 Q Have you ever formed any belief as to why the
14 project was terminated? and the Bally Manufacturing as an
15 employer. Yes.

16 Q What was that belief? tion?

17 A The blackjack game we were designing was a
18 complex machine with a limited volume. And at that time
19 Bally had gone public and was looking for high volume
20 products. It's my belief it just did not fit their of Bally
21 production schedules. mination of the contract.

22 Q Was that a solid state electronic system that
23 you were developing for that game? specific date. Again, it
24 was t A ter Not entirely. It was a mixture of electronic
25 and electromechanical. t in the 1969 area.

1 Q What part of it was electromechanical? you had

2 with A The physical displays that presented the cards.

3 Q What form did they take? how if I could find it.

4 A Split-flap indicators. oh Bally terminated at

5 some Q nt? What part was electronic?

6 A The central logic and communications.

7 Q MR. KATZ: By the way, in case you -- off the
8 record for a minute, please. ly for approximately five and
9 a half or six years (Discussion held off the record.) ory by

10 some Q Ans (BY MR. KATZ) After this project was dropped
11 or terminated, what did you do next? You were still a x the
12 consultant; is that right?

13 A No. After the project was dropped and the in
14 contract lapsed, I joined the Bally Manufacturing as an
15 employee. What did you use to fix those games?

16 Q And what was your position? hat te had obtained

17 from A ly. I was chief engineer for electronics.

18 Q At that time did you still report to Joe Lally?

19 A Yes. what was the I did not

20 Q When was it that you became an employee of Bally?

21 in? A At the termination of the contract.

22 Q Do you remember when?

23 A No, I don't remember a specific date. Again, it
24 was the termination of the blackjack project which I think
25 we determined was about in the 1969 area.

1 Q Do you have a copy of the contract that you had
2 with Bally with respect to that blackjack game?

3 A Not with me. I don't know if I could find it.

4 Q Was your employment with Bally terminated at
5 some point? I was forming my own business and left Bally to
6 run it but I resigned.

7 Q When was that? was that?

8 A I worked for Bally for approximately five and
9 a half or six years. I would have to refresh my memory by
10 some means or other to get the exact date.

11 Q Do you have anything with you that would fix the
12 date? A Yes.

13 A I think the dates are in the deposition -- in
14 the affidavit I mean. Chicago, Illinois.

15 Q What did you use to fix those dates? What
16 year? A Mr. Meyers had information that he had obtained
17 from Bally. Approximately 1972.

18 Q And you relied on that information? why?

19 A It seemed reasonable. I did not check it.

20 Q Do you remember what form that information was
21 in? A In particular, we were consultants in

22 microfilm Verbalizations.

23 Q It was verbal information?

24 A I think so. Atoms.

25 Q Did you see any documents that showed the dates

1 of your employment?

2 A No.

3 Q What were the circumstances surrounding your
4 resignation from Bally?

5 A I was forming my own business and left Bally to
6 run that business.

7 Q What business was that?

8 A It was called Emu Electronics.

9 Q E-m-u?

10 A Electronics, Incorporated.

11 Q Was that business actually formed?

12 A Yes.

13 Q Where was it located?

14 A In Bensonville, Illinois.

15 Q Do you remember when that was formed? What
16 year?

17 A Approximately 1972.

18 Q What was the business of that company?

19 A Consulting.

20 Q Consulting in any particular area?

21 A In particular, we were consultants in
22 microprocessor applications.

23 Q To whom?

24 A Numerous customers.

25 Q In what fields?

1 A Industrial control, instrumentation, scale
2 equipment -- things like that.

3 Q Were you the owner of that corporation?
4 A I was the president.

5 Q Were you also a stockholder?

6 A I was a 50 percent stockholder.

7 Q For how long were you president of Emu
8 Electronics?

9 A I still am.

10 Q That company is still in existence?

11 A Yes.

12 Q Where is it located now?

13 A It's located in Las Vegas, Nevada, at this time.

14 Q When did it move from Bensonville, Illinois,
15 to Las Vegas?

16 A Approximately August, September of last year.

17 That would be 1978.

18 Q You still are, you say, president of that
19 company?

The peak was probably early 1978.

20 A Yes.

21 Q Is it a going business?

22 A Not very much.

23 Q Does it have any other employees? Other than
24 yourself?

What was the question?

25 A It has no employees at this time.

1 Q Only yourself?

2 A No, I am not an employee.

3 Q As president, you don't consider yourself as an
4 employee? Did you ever bring it out as a commercial game?

5 A No.

6 Q Are you still a 50 percent stockholder in the
7 company? I'm not exactly sure of the date it was approved

8 A Yes. But it was approximately 1977, 1978 that it was approved by

9 Q Who is the other 50 percent stockholder? the Nevada Gaming Commission.

10 A My wife. work done yourself?

11 Q When it was in Bensonville, did you have any
12 employees? Did you ever manufacture the game?

13 A Yes.

14 Q How many employees? manufactured by a 3rd

15 A It varied from a minimum of zero to a maximum
16 of about eight or ten. particular company.

17 Q When did it have a maximum of eight or ten? Do
18 you remember? Bally Electronics.

19 A The peak was probably early 1978.

20 Q Did you do any further work on the blackjack
21 game that you had started on after you left Bally? also a 3rd

22 A Yes. was 3rd

23 Q What was that? machine that was made by Bally

24 A What was the question? machine

25 Q What work did you do on it? work when it started

1 A I developed it further.

2 Q Was that on your own?

3 A Yes.

4 Q Did you ever bring it out as a commercial game?

5 A Yes.

6 Q When was that?

7 A I'm not exactly sure of the date it was approved.
8 But it was approximately 1977, 1978 that it was approved by
9 the Nevada Gaming Commission.

10 Q Was that work done yourself?

11 A Yes.

12 Q Did you ever manufacture the game?

13 A Yes.

14 Q Was that actually manufactured by some
15 particular company?

16 A Yes.

17 Q What company was that?

18 A Emu Electronics.

19 Q So in addition to doing consulting work, it was
20 also a manufacturer?

21 A It became a manufacturer.

22 Q When was that?

23 A When we started manufacturing that blackjack
24 machine, approximately 1978.

25 Q In August or September of 1978 when you started

1 manufacturing, when Emu started manufacturing the blackjack
2 game -- Seven or eight at this time.

3 MR. MEYERS: Counsel, I think you are
4 misspeaking yourself. I don't think that's when the witness
5 said he started "manufacturing." I think he said that is
6 when he moved to Las Vegas.

7 Q (BY MR. KATZ) Oh, I am sorry. Is that right?

8 A That's correct.

9 Q When did you say that you started manufacturing?

10 A About a year prior to that.

11 Q '77. Were those being manufactured then, in
12 Bensonville?

13 A Yes.

14 Q Are you also president of a corporation by the
15 name of Casino Electronics, Inc.?

16 A Yes.

17 Q Located in Las Vegas?

18 A Yes.

19 Q Is there any relationship between Emu Electronics
20 and Casino Electronics?

21 A They have common stockholders.

22 Q What is the business of Casino Electronics, Inc.?

23 A Manufacture, leasing, operating gambling
24 equipment, amongst other things.

25 Q Are there any employees?

A Yes.

1 Q Approximately how many?

2 A Seven or eight at this time.

3 Q Is Casino Electronics presently manufacturing
4 the blackjack machine?

5 A Yes.

6 Q Is that blackjack machine that is presently being
7 manufactured basically the same design that you were working
8 on initially?

9 A Yes.

10 Q When you left Bally's employ, did you take any
11 documentation relating to that game with you?

12 A I did not take any with me. It was already in
13 my possession.

14 Q What do you mean by that?

15 A The majority of the work that involved
16 documentation was done at my own house on my own time and
17 given to Bally; so that at the time of leaving Bally, those
18 documents were still on file at my house.

19 Q And the documents that had been generated at
20 Bally -- were there any blueprint drawings, for example, or
21 schematic drawings, and things of that nature?

22 A Yes. I used the drafting department at Bally
23 to make copies. The original drawings were given to Bally
24 when I left Bally.

25 Q Did you ever have any agreements with Bally

1 with respect to the release of any rights or anything under
2 the contract?

3 A No.

4 (Discussion held off the record.)

5 Q (BY MR. KATZ) Did you ever have any discussions
6 with respect to your manufacturing that or continuing the
7 design work or the manufacture of that blackjack machine
8 with respect to anyone at Bally?

9 A Yes.

10 Q With whom?

11 A Bill O'Donnell.

12 Q What was that understanding, as far as you
13 believe?

14 A The contract I had said that if Bally
15 Manufacturing did not manufacture the game within a given
16 time that the rights to the game would revert to me. I had
17 a discussion with Mr. O'Donnell to make sure that he
18 understood those terms and that he understood that it was my
19 desire to make the game on my own, and I was giving Bally
20 Manufacturing a final chance to change their mind in case
21 they wanted to manufacture it themselves.

22 Q As far as you know, did they ever manufacture it
23 themselves?

24 A No, they didn't.

25 Q What are the other products of Casino Electronics

1 other than the blackjack machine?

2 A Any other projects are in the design stage or
3 the developmental stage, and I'd rather not discuss them.

4 Q You have no other commercial products on the
5 market at the present time other than the blackjack machine?

6 A No.

7 Q Has Casino Electronics also gone into the
8 leasing business?

9 A Yes. that I know of.

10 Q Does it lease the blackjack machines?

11 A Yes.

12 Q Does it lease any other products?

13 A It leases auxiliary equipment associated with
14 the blackjack machines but not, essentially, other products.

15 Q What kind of auxiliary equipment?
16 A Stands, seats, part of the installation of the
17 blackjack machines.

18 Q When you said before that Casino Electronics
19 manufactures and leases gambling equipment, "amongst other
20 things," were these the other things that you were
21 referring to? (Discussion held off the record.)

22 A No, I was referring to the products which are
23 still in development. Would you read the question.

24 Q You have products under development, but they
25 are not -- THE WITNESS: Coin payout hoppers.

1 A Not at this stage. this a product manufactured
2 by someone. They are not commercially marketed at the
3 present time?

4 A No. I should add to that that Casino Electronics
5 is the distributor for other equipment but -- but does not
6 manufacture it. distributing it?

7 Q Does Casino Electronics sell to Bally
8 Manufacturing?

9 A Not that I know of. distributor; is that
10 correct? Q Does it sell to Williams Electronics?

11 A No.

12 Q Or Game Plan or AES Technology? are these?

13 A Not at this time.

14 Q But it has in the past?

15 A Yes -- I am sorry. There are occasions where
16 we have sold to Game Plan.

17 Q When was that?

18 A There have been some sales during the last
19 twelve months.

20 Q What was sold? What type of product?

21 (Discussion held off the record.)

22 THE WITNESS: What was the question?

23 MR. KATZ: Would you read the question.

24 (The pending question was read.)

25 THE WITNESS: Coin payout hoppers.

1 Q (BY MR. KATZ) Is this a product manufactured
2 by someone else? are those other products?

3 A Yes. ball machines.

4 Q Is Casino a distributor for that product?

5 A Do you mean authorized distributor or just
6 somebody who is distributing it? of pinball machines?

7 Q Someone who is distributing it.

8 A Yes. these cocktail table-type pinball machines?

9 Q But not an authorized distributor; is that
10 correct? Stand-up type?

11 A Correct. others.

12 Q What kind of coin payout hoppers are these?

13 A The type used in slot machines.

14 Q Is there a name for it? Game Plan and just sold

15 to others? A It's a coin payout hopper.

16 Q Who manufactures it?

17 A Bally Manufacturing. regular business, purchasing

18 the pinball A Were these purchased from Bally Manufacturing?

19 others? A Yes.

20 Q And then they were sold to Game Plan, is that
21 right, during the last twelve months?

22 A Yes. did it first come into existence?

23 Q Are there other products other than coin payout
24 hoppers that Casino distributes, whether as an authorized
25 dealer or not?

1 A Yes. ~~that~~ relationship based on any written
2 ~~agreement~~ Q t? What are those other products?

3 A Pinball machines.

4 Q What else? ~~standing?~~

5 A I can't think of any other significant items.

6 Q Any particular type of pinball machine?

7 A Game Plan's. ~~ms of Game Plan.~~

8 Q Are these cocktail table-type pinball machines?

9 A Amongst others.

10 Q Stand-up type? ~~any of this confidential?~~

11 A Amongst others. ~~not really.~~

12 Q What other types are there? ~~but any other~~
13 ~~products~~ A: the Cocktails and stand-up. ~~manufacturers other than~~

14 ~~those~~ Q: ~~has~~ Are these purchased from Game Plan and just sold
15 to others? ~~We didn't really cover the fact that I saw~~

16 ~~distr.~~ A: ~~Yes. machines manufactured by Game Plan.~~

17 Q Is this done as a regular business, purchasing
18 the pinball machines from Game Plan and selling them to
19 others? ~~I think the date is January of 1979.~~

20 A Hopefully. ~~so~~ It's only been in existence for a
21 short time. ~~anyway?~~

22 Q When did it first come into existence?

23 A About August this year. ~~contract on?~~

24 Q August of 1979?

25 A Yes. ~~do~~ know what the date of that contract is?

1 Is it Q Is that relationship based on any written
2 agreement? Approximately.

3 A No. do you distribute these Game Plan slot

4 Q Oral understanding?

5 A Yes. customers.

6 Q With whom? customers --

7 A Wendel McAdams of Game Plan. Clark County.

8 Q Wendel -- in Nevada?

9 A McAdams.

10 Q MR. MEYERS: Is any of this confidential?

11 A THE WITNESS: Not really.

12 Q (BY MR. KATZ) Do you distribute any other
13 products that you buy from other manufacturers other than
14 those we have mentioned? any --

15 A We didn't really cover the fact that I also
16 distribute slot machines manufactured by Game Plan. appreciate

17 Q When did you start distributing Game Plan's
18 slot machines? side of the subject matter in this case, I

19 A I think the date is January of 1979. don't see where

20 Q Is that also pursuant to oral understanding
21 with Wendel McAdams? do so, but I would like to do so outside

22 A No, we have a contract on that. of the hearing

23 Q That you have a written contract on?

24 A Yes. KATZ: We will take a five-minute break.

25 Q Do you know what the date of that contract is?

1 Is it in about January, '79? you know what Wendel M. Adams'
 2 posit A is Approximately.

3 Q Who do you distribute these Game Plan slot
 4 machines to? MR. MEYERS: I will caution the witness that he
 5 doesn't have Legal customers. If you know, fine. If not --

6 Q Are those customers -- your best understanding
 7 of the contracts limits me to Clark County.

8 Q That's in Nevada?

9 A Yes. there are other distributors in Clark County

10 Q Does that encompass Las Vegas? of?

11 A Yes.

12 Q Have you sold any? and are they?

13 A No. I know there are some.

14 Q Have you sold any --

15 MR. MEYERS: Counsel, I really can't see where
 16 this is of any relevance to the issue at hand. I appreciate
 17 getting some background, but, as to what products he
 18 distributes outside of the subject matter in this case, I
 19 don't see where we are going?

20 MR. KATZ: If you would like to discuss relevancy,
 21 I would be happy to do so, but I would like to do so outside
 22 of the hearing of the witness.

23 MR. MEYERS: Okay.

24 MR. KATZ: We will take a five-minute break.

25 (Brief recess taken.)

1 Q (BY MR. KATZ) Do you know what Wendel McAdams'
2 position is at Game Plan?

3 A I think he's a vice-president.

4 A MR. MEYERS: I will caution the witness that he
5 doesn't have to speculate. If you know, fine. If not --

6 Q (BY MR. KATZ) That's your best understanding
7 of his position?

8 A That's correct.

9 Q Are there any other distributors in Clark County
10 for Game Plan products that you are aware of?

11 A Yes.

12 Q What are they, or who are they?

13 A I don't know their names. I know there are other
14 people distributing the products.

15 Q Your distributorship for Game Plan is not an
16 exclusive distributorship for this area? By "you," I mean

17 A You are talking about the pinballs or the slot
18 machines? It's hard to answer that question. I have been

19 A Let's first talk about the pinball machines.

20 A It's not exclusive.

21 Q How about for the slot machines?

22 A That's exclusive.

23 Q So as of January of 1979 pursuant to a written
24 contract, your company became the exclusive distributor for
25 slot machines for Game Plan in Clark County, Nevada; is

1 that right? Have you ever actually sold any Game Plan

2 A I think that's correct.

3 Q Are you a stockholder in Casino Electronics?

4 A Yes. you started distributing these as of August,

5 '79; Q Are there any other stockholders besides you?

6 A Yes, my wife is the other stockholder.

7 Q You and your wife are the stockholders of Casino
8 Electronics?

9 A Yes.

10 Q Is that a Nevada corporation?

11 A Yes.

12 Q Do you know the identity of any other
13 distributors of Game Plan products in this area?

14 A No. have purchased slot machines from Game Plan

15 Q Are you the distributor of other products other
16 than the ones we have mentioned thus far? By "you," I mean
17 Casino Electronics.

18 A It's hard to answer that question. I have been
19 negotiating with various manufacturers of various equipment
20 for distributorships, and various deals are in various
21 stages of development.

22 Q But at the present time there aren't any as far
23 as you know?

24 A It's hard to say whether some of these deals
25 have reached conclusion or not.

1 Q Have you ever actually sold any Game Plan
2 pinball machines?

3 A No. I sold Game Plan slot machines, I would have
4 to purchase And you started distributing those as of August,
5 '79; is that right? don't carry an inventory --

6 A Yes. MEYERS: I will object. It's just totally
7 irrelevant. Q Have you purchased pinball machines from Game
8 Plan? A Yes. you have established the interest of the witness
9 in his answer. Yes. and I just think we've really taken this
10 about Q far. For resale? to go. I think we have been very,
11 very reasonable. Yes. up to this point in time.

12 Q But you haven't resold them? A Yes. I have an
13 inventory of That's right. pinball machines?

14 Q You have purchased slot machines from Game Plan
15 pursuant to your exclusive distributorship, but you haven't
16 sold those? A Yes. I have an inventory on hand of slot machines.

17 A That's not correct.

18 Q What is the situation there?

19 A I have not purchased any of the slot machines.

20 Q Is your agreement for exclusive distribution
21 with Game Plan for slot machines that you obtain orders and
22 you will then --

23 MR. MEYERS: Counsel, I don't think that is
24 relevant.

25 MR. KATZ: Could I finish the question?

1 locat Q (BY MR. KATZ) -- purchase those slot machines
2 from Game Plan?

3 A If I sold Game Plan slot machines, I would have
4 to purchase them from Game Plan. of the company --

5 Q But you don't carry an inventory -- it. If you
6 want to dis MR. MEYERS: I will object. It's just totally
7 irrelevant to this case. It has nothing to do with pinballs.
8 I believe you have established the interest of the witness
9 in his business, and I just think we've really taken this
10 about as far as it ought to go. I think we have been very,
11 very reasonable up to this point in time. that it is

12 relev Q (BY MR. KATZ) Do you presently have an
13 inventory of Game Plan pinball machines? that has any more

14 relev A What's your definition of "inventory"? relationship

15 Q I am sorry. I will repeat the question. Do you
16 presently have an inventory on hand of Game Plan pinball
17 machines? That's what counsel advises me.

18 A Yes. the present time does Casino Electronics

19 owe G Q How large is that? How many machines? Do you
20 know? A Yes.

21 A One. much money is that?

22 Q One machine? in fact 30,000.

23 A Yes. you know an approximate amount?

24 Q Do you have any arrangement with Game Plan with
25 respect to the consignment of games that you may put on

1 location? It is, is that a matter of public record?

2 A No.

3 Q Do you have any Game Plan slot machines in your
4 possession or in the possession of the company -- or coding --

5 I think it's MR. MEYERS: Counsel, that's about it. If you
6 want to discuss pinballs, that's the subject of the suit.
7 It is absolutely and totally irrelevant to the subject of
8 this suit what he has in his possession outside of the
9 subject matter of this suit, and I'll instruct him not to
10 answer. Does by Game Plan?

11 A MR. KATZ: It's my position that it is
12 relevant for the reason I gave you out in the hall.

13 A MR. MEYERS: I don't think that has any more
14 relevance than the fact of the existence of any relationship.

15 Q (BY MR. KATZ) Mr. Foster, do you refuse to
16 answer the question? Related to the manufacture of the

17 DIRECT A That's what counsel advises me.

18 Q At the present time does Casino Electronics
19 owe Game Plan any money?

20 A Yes.

21 Q How much money is that?

22 A I don't know an exact figure.

23 Q Do you know an approximate amount?

24 A I would say approximately a \$100,000, \$120,000.

25 DIRECT Q Is that figure of a \$100,000 or \$120,000 or

1 whatever it is, is that a matter of public record?

2 A Yes.

3 Q Where would that be a matter of public record?

4 A In our financial statement for the year ending --
5 I think it's June 30.

6 Q Are those filed with the State of Nevada?

7 A Not at this time. They are subject to audit of
8 the State.

9 Q Does that represent money loaned to Casino
10 Electronics by Game Plan?

11 A Yes.

12 Q Is there any security for that loan?

13 A Yes.

14 Q What is that?

15 A If my memory serves me correctly, it's the tools,
16 dyes, and fixtures related to the manufacture of our
17 blackjack machine.

18 Q Is that also in your financial statement?

19 A I'm not sure.

20 Q Is this a matter of public record?

21 A Yes.

22 Q Where would that be a matter of public record?

23 A The Nevada Gaming Commission.

24 Q For how long has this money been owed by Casino

25 Electronics to Game Plan?

1 loan. A: The sum has not been a fixed figure. It has
 2 been an increasing figure as the loan has increased in size
 3 commencing in about April, May of this year.

4 Q: April of --

5 A: 1979. That is a guess on my part as to the date.

6 Q: What was the initial figure, approximately.

7 A: It started out as zero.

8 Q: What was the first increment?

9 A: MR. MEYERS: Counsel, I can not see the relevance
 10 of that history. You have a number. You know what the
 11 status is today in terms -- I mean, are we going to spend
 12 the entire session in this area? I think you are getting
 13 information -- and I am trying to be reasonable, and I'd
 14 appreciate it if you would try to get forward with the
 15 examination. I don't know how far you want to go in this
 16 area.

17 Q: (BY MR. KATZ) Are you going to answer --

18 Q: MR. MEYERS: I will object to the question.

19 Q: (BY MR. KATZ) Would you answer that question?

20 A: Not if counsel objects.

21 Q: MR. MEYERS: You can answer it.

22 Q: (BY MR. KATZ) You said the initial amount was
 23 zero, and I am talking about the first amount of the loan.

24 A: I think the first increment was \$20,000.

25 Q: Is there an agreement in connection with this

1 loan between Game Plan and Casino Electronics? Plaintiff's

2 Exhibit A BD Yes. and ask you if that's a copy of the subpoena

3 I believe Is that also on record with the Nevada Gaming

4 Commission? I looks like it.

5 A Yes. you note an attachment to the subpoena with

6 respect Q What obligations, if any, does Casino Electronics

7 have under that agreement with Game Plan with respect to

8 your business?

9 A With your permission -- wants with you?

10 Q I am asking for your understanding of it.

11 A Is the question meant to determine the reason with
12 why we have the loan from Game Plan?

13 Q Yes, that's one reason. I am counsel one at a

14 time, And, The reason why we have the loan is we have

15 granted Game Plan the distributorship for our blackjack auto

16 machines. Part of the terms of that distributorship were

17 they would make finances available to us for manufacturing.

18 Q Have you sold those machines to Game Plan, any
19 of those machines? A Yes. Do you want to get go through

20 these A Not at this time.

21 Q Are those machines currently being manufactured?

22 A Yes. I have two copies of the subpoena

23 you are Mr. Foster, did you receive a subpoena in

24 connection with this matter? A I see the copies of the

25 subpoena A Yes.

1 Q I show you what I have marked as Plaintiff's
2 Exhibit BD 101, and ask you if that's a copy of the subpoena?
3 I believe it is.

4 A I looks like it.

5 Q Did you note an attachment to the subpoena with
6 respect to documents that you were requested to bring with
7 you? What was the occasion of your receiving this?

8 A Yes. I't remember.

9 Q Did you bring any documents with you?

10 A Yes, I did.

11 Q May I inspect the documents that you brought with
12 you?

13 A I would like to show them to counsel one at a
14 time, and, if he agrees, you can have a look at them.

15 MR. HARDING: Do you want to take a five-minute
16 break?

17 MR. KATZ: Let's take a five minutes' recess.

18 (Brief recess taken.)

19 THE WITNESS: Do you want to just go through
20 these one at a time?

21 MR. KATZ: Okay.

22 THE WITNESS: I have two copies of the subpoena
23 you showed me. I have that document.

24 Q (BY MR. KATZ) Could I see the copies of the
25 subpoena?

1 A Yes.

2 Q I notice here a document that you handed me
3 which is entitled "Applicant's Reply to Protest," and it's
4 dated with a received stamp bearing the date August 13, '79.
5 Is that when you received it?

6 A Yes.

7 Q What was the occasion of your receiving this?

8 A I don't remember.

9 Q Had you requested this?

10 A I don't remember.

11 Q Do you know why it was sent to you?

12 A No.

13 Q Do you know who sent it to you?

14 A No.

15 Q Do you know how it came to be in your possession?

16 A Not directly. I have received so many papers
17 in connection with this case over the last few months, I
18 can not remember where each individual one came from.

19 Q Do you have any belief as to where they came from?

20 A If you want the possibilities --

21 MR. MEYERS: Counsel, he has already testified
22 that he doesn't know.

23 Q (BY MR. KATZ) When I asked you where this paper
24 came from, did anybody come into mind?

25 A Yes, the mailman. Probably came in the mail.

1 quest Q: in Do you have any idea who sent this to you?

2 A: If you want me to give probabilities --

3 Q Yes. HARBING: I would like to add that in

4 addit A: to More than probably -- Plaintiff's counsel's

5 position was MR. MEYERS: Counsel, are we going to limit that

6 question to anybody other than counsel? As I understand

7 your position heretofore in this case, the existence or is

8 non-existence of any communication between a witness and his

9 counsel is privileged, the identity of whether or not such

10 a communication existed. If that is your position, fine.

11 So I will just ask If that is not your position and you wish

12 to waive your previously stated position by pursuing this

13 matter, then we will so consider it. Answer to my question, and

14 you should MR. KATZ: I just asked the question. I don't

15 think my position is relevant to answering of the question.

16 MR. MEYERS: I think in terms of the objections

17 that have been raised in this case by counsel for Bally in

18 the past, which is that all questions about communications

19 should be not including the possibility of counsel because

20 the identity and the information as to whether or not there

21 was a communication with counsel is a privileged matter. If

22 that is not your position, then you may go forward with the

23 question. If that is your position and you wish to sustain

24 that position that you have previously stated in this case,

25 then I think I would appreciate it if you would restate the

1 question in the manner in which you have interpreted the
2 attorney-client privilege in the past.

3 MR. HARDING: I would like to add that in
4 addition to that that yesterday Plaintiff's counsel's
5 position was extended to include communications in
6 contemplation of employment by the witness.

7 MR. KATZ: Again I state I think that this is
8 just burdening the record, and I'd appreciate it if counsel
9 -- and I know there are a lot of lawyers present here. If
10 everybody made speeches, we'd never finish this deposition.
11 So I will just ask the question. You stated your position.
12 You have stated it alternatively. I still don't know what
13 it is. But I am just seeking an answer to my question, and
14 you should do whatever you think you should do. That's all
15 I know.

16 Could I have my question. I've forgotten
17 what it was now.

18 (The pending question was read.)

19 MR. MEYERS: I will enter another objection and
20 instruct the witness not to answer as to possibilities but
21 only as to matters of which he has knowledge.

22 THE WITNESS: If I have to give a direct answer,
23 I would have to say I don't know.

24 Q (BY MR. KATZ) But you never requested that this
25 document be sent to you; is that right?

1 cont. A That's right. Let's keep the documents here,
2 please, so I don't lose track of them.

3 MR. MEYERS: Go ahead, counsel. These documents
4 are being produced, but in the event that there is a desire
5 to retain them, we will make copies so the witness can retain
6 the originals. Is that satisfactory?

7 A MR. KATZ: Yes. Question with Mr. Meyers' questions
8 that Q read (BY MR. KATZ) You just handed me another
9 document. Do you know what this document is? Question?

10 A That is advertising material and the Bally Alley
11 service manual. Question did that occur, that you read the manual?

12 Q How did this document come into your possession?

13 A By the same means as the first one. Question him the
14 answer Q to It was sent to you?

15 A Yes. at the same session, but during the last
16 couple Q of it Had you requested it?

17 A No. Question did you first have occasion to know of
18 Mr. G Q son Did you read this material?

19 A Yes. I don't remember specifically.

20 Q What was your purpose in reading it? Answer?

21 A I was being asked questions on the construction
22 of the Bally Alley machine, and the manual served to refresh
23 my memory.

24 Q By whom were you being asked question? Answer?

25 designed by MR. MEYERS: Counsel, does that question of yours

1 contemplate the possibility of identification of counsel?

2 MR. KATZ: Yes.

3 THE WITNESS: I was asked the questions by
4 Gerson Meyers. by telephone?

5 Q (BY MR. KATZ) By anyone else other than
6 Mr. Meyers? In what connection?

7 A It's in connection with Mr. Meyers' questions
8 that I read the manual. that it relates to privileged

9 Q Did you give him answers to his question? answer.

10 A Yes. MR. KATZ: I will ask it more generally.

11 Q When did that occur, that you read the manual?
Was it in connection with the Bally's?

12 A In the last couple of months.
Casino lect.

13 Q When was that? Also when you gave him the
14 answers to his questions?

15 A Not at the same session, but during the last,
16 couple of months. of these questions that Mr. Katz is

17 Q When did you first have occasion to know of
18 Mr. Gerson Meyers? by burdened with dialogue between the

19 A I don't remember specifically. been allowed as

20 Q Was it within the last couple of months? on and

21 A Yes -- I think that's correct. just want the

22 Q What was the occasion of your first contact with
23 Mr. Meyers? at Bally's attorneys have not yielded any

24 A From memory, I think he requested me if I
25 designed the Bally Alley. asked (f) I, I am not going to take the time

1 to cc Q Was that by telephone? record. We will just go

2 on w: A the I think so.

3 Q Had you ever heard of him prior to his first
4 contacting you by telephone? here. What is this that you

5 have A I think so.

6 Q In what connection? title at the top. It's a

7 United States MR. MEYERS: I'll object to that question,
8 counsel, on the grounds that it relates to privileged
9 communications and will instruct the witness not to answer.

10 Q (BY MR. KATZ) I will ask it more generally. 1970
11 Was it in connection with the business relationship between
12 Casino Electronics and Game Plan, Inc.? solving this document?

13 A It was not in connection with the Bally Alley
14 situation -- one with the same received stamp date.

15 Q MR. HARDING: I want the record once again to
16 reflect the nature of these questions that Mr. Katz is ren't
17 propounding when in the last several depositions the record
18 has been so terribly burdened with dialogue between the
19 attorneys on what discovery defendants have been allowed as
20 to communications between the witness under deposition and
21 his attorneys, Mr. Katz and Mr. Welsh. I just want the
22 record to reflect that these questions are directly the
23 questions that Bally's attorneys have not yielded any in
24 discovery on. in this patent?

25 A MR. KATZ: Well, I am not going to take the time

1 to comment on your comments on the record. We will just go
2 on with the deposition.

3 Q (BY MR. KATZ) Can I see the other documents?
4 We will put those in the file here. What is this that you
5 have handed me now?

6 A I think there is a title at the top. It's a
7 United States Patent.

8 Q That is 4093232?

9 A Yes.

10 Q Is that your date received stamp, August 13, 1979?

11 A Yes.

12 Q What was the occasion of receiving this document?

13 A Again, I don't remember. It must be identical
14 to the other one with the same received stamp date.

15 Q Did you read this patent?

16 A No. If you mean in its entirety, no, I haven't
17 read it.

18 Q Have you read any parts of it?

19 A Yes, I have glanced through it.

20 Q Have you had occasion to make any notes or
21 memorandums in connection with this patent?

22 A No.

23 Q Have you had any correspondence with anyone in
24 connection with this patent?

25 A Only with counsel.

1 Q You are handing me another paper. This is
2 entitled "Protest Under 37CFR, Section 1.291." Do you know
3 what this is?

4 A No. you recall whether this was sent to you in

5 the mail or Q Have you ever had occasion to read it?

6 A Yes. on't recall.

7 Q What was the occasion of your reading it? of

8 Colin A. For I read it last night so I could be familiar with
9 it for today's meeting. But I am not sure which one I have
10 handed you. Could I ask you to identify this document which

11 you handed Q You hadn't read it prior to that time?

12 A Yes, I think I had. made by myself.

13 Q Did you ever have anything to do with the
14 drafting of this paper? discussion principally with Gerson Meyer

15 A Let me have a look at it. affidavit.

16 Q MR. RIFKIN: Is that the Game Plan protest that
17 document? unsigned copy of it. Did you ever have occasion to

18 sign a copy MR. KATZ: Yes. it?

19 A THE WITNESS: No, I had no connection with
20 drafting it. MR. HANDING: Mr. Katz, may I have 30 seconds?

21 Q (BY MR. KATZ), Let's see what else. I note going
22 back to this document, 37CFR, 1.291, the protest paper, there
23 is no date received stamp on that. Does that indicate that
24 it wasn't received by you through in the mail? make it clear

25 that A or q It doesn't indicate anything specifically. the

1 witness Q and Do you have a regular practice with respect to
2 stamping documents or any mail that comes into your office?

3 not, A I write privileged communications between
4 client Q and Do you recall whether this was sent to you in

5 the mail or personally delivered? advise or materials related
6 there A I don't recall. I am the witness to answer the

7 quest Q is You handed me a paper entitled "Affidavit of
8 Colin E. Foster." ATZ: That's your position?

9 A Okay. MEYERS: That's correct.

10 Q Could I ask you to identify this document which
11 you handed me. your words --

12 A That is an affidavit made by myself. I make that

13 of record Q d. What occasioned you to make this affidavit?

14 A I had a discussion principally with Gerson Meyers
15 with regard to the contents of that affidavit. I am your

16 posit Q on When did you receive this copy? I notice that
17 it is an unsigned copy of it. Did you ever have occasion to
18 sign a copy of this affidavit?

19 A Yes, I have. you have handed me a number of

20 hand written MR. HARDING: Mr. Katz, may I have 30 seconds?

21 A Yes. (Discussion held off the record.)

22 Q MR. MEYERS: Counsel, I would make a brief
23 statement in connection with your interrogation of the
24 witness and the previous questions. I want to make it clear
25 that your questions respecting communications between the

1 witness and counsel with respect to that affidavit relate
2 to fact matters that were put into the public record and are
3 not, as I understand, the privileged communications between
4 client and attorney that relates to matters respecting the
5 requesting or providing of legal advise or materials related
6 thereto. Therefore, allowing the witness to answer the pages
7 questions is not a waiver of the privilege. I take

8 considerable MR. KATZ: That's your position?

9 Q MR. MEYERS: That's correct. ending of what those
10 notes relate MR. KATZ: I don't want to indicate that we

11 agree. A In other words -- detailed analysis.

12 Q MR. MEYERS: I understand. I have to make that
13 of record. The second page is an analysis of the polarity

14 of the sign MR. KATZ: I am not expecting agreement with
15 your position, but I respect your right to state your as a
16 position on the record, ing polarity. I needed to document

17 Q (BY MR. KATZ) We will get back to that affidavit.
18 Could I see what else you have? constitutes the

19 documentation? Now, you have handed me a number of
20 hand written notes stapled together, six sheets?

21 A Yes. MEYERS: Counsel, do you want to mark these

22 pages Q re: Could you tell me what those are. are reference?

23 A The Summons requested I bring all documents I
24 had relating to the Bally Alley. Those are all documents
25 that were sitting in my file. The remainder of the hand of

1 written comments and notes produced while I was designing
2 the game. Do you know what portion of the program this
3 is? Q And these were notes of yourself while you were
4 working at Bally? without considerable study.

5 A While I was employed by Bally.

6 Q What are the notes relating to on the first page?

7 A The notes on the first page would take the last
8 considerable effort on my part to decipher.

9 Q Do you have a ready understanding of what those
10 notes related to? the scoring procedure in the game.

11 A Not without detailed analysis.

12 Q How about with respect to the second page?

13 A The second page is an analysis of the polarity
14 of the signals used by the logic memory which stored the
15 pin positions in the Bally Alley game. Since there was a
16 lot of confusion regarding polarity, I needed to document
17 the situation. what you see?

18 Q And the second page constitutes the very complex
19 documentation? That belongs to (the) Bally Alley. I don't
20 think A Yes. want it made public. Manufacturing

21 MR. MEYERS: Counsel, do you want to mark these
22 pages in red with the circled numbers for future reference?

23 MR. KATZ: I don't know yet. statement.

24 Q (BY MR. KATZ) How about the third page?

25 A The third page is a portion of a flow diagram of

1 the program of the Bally Alley game. is this?

2 Q Do you know what portion of the program this
3 relates to? game. Except for its enlargements, it is

4 identical. A Not without considerable study. vice manual. They
5 have Q And the next page? tions on this one.

6 A It's part of the previous page. this is

7 plain. Q And the next-to-last page, referring to the last
8 two pages, I guess they are related? or --

9 A The last two pages are related. They are a
10 state diagram of the scoring procedure in the game.

11 Q What kind of --ld we have you make the copy and

12 then A State. his?

13 Q In this particular game, was the scoring
14 procedure actually used in the Bally Alley game? difficult.

15 That A Yes. to be done photographically.

16 Q Could you explain the significance of the two
17 sheets beyond what you see?

18 A The information on these sheets is very complex
19 and privileged. That belongs to (the) Bally Alley. I don't.

20 think they would want it made public. *Manufacturing. Cf*

21 if Mr. Meyer. MR. MEYERS: You are their counsel. So I will
22 leave it to them. WITNESS: I would rather keep it.

23 MR. KATZ: I will accept your statement. copies.

24 Q (BY MR. KATZ) Have we finished that? at the

25 present. A Yes. We may change our minds later.

1 Q Those next sheets, what is this?

2 A This is a blueprint of the main control of the
3 Bally Alley game. Except for its enlargements, it is
4 identical to the one in the Bally Alley service manual. There
5 have been some additional notations on this one.

6 MR. KATZ: I think we will mark this as
7 Plaintiff's Deposition Exhibit BD 102. Do you have any
8 objections to marking this original, or --

9 MR. MEYERS: As long as the witness can retain
10 it and can provide you with copies of it.

11 MR. WELSH: Could we have you make the copy and
12 then return it to him?

13 MR. MEYERS: We will work it out.

14 THE WITNESS: Copies would be very difficult.
15 That would have to be done photographically.

16 MR. KATZ: That is in the nature of this
17 particular drawing.

18 THE WITNESS: The drawing is also old and
19 suffering and liable to deteriorate with too much handling.

20 MR. WELSH: Would the witness have any objections
21 if Mr. Meyers kept it in his position?

22 THE WITNESS: I would rather keep it.

23 MR. MEYERS: We will arrange for getting copies.

24 MR. KATZ: We won't have this marked at the
25 present time. We may change our minds later.

1 Q (BY MR. KATZ) Who made this drawing?

2 A As far as I did. I with the game. They were never combined

3 Q With your hand? not while I was at Bally.

4 A Yes. RIFKIN: May I see that, Mr. Katz?

5 Q This is a blueprint; isn't that right?

6 A That's correct. I, in fact, drew the original
7 by hand. which appears to be a listing, a program listing.

8 Q You drew the original. Was that original drawn
9 on a vellum, or, if you know, a transparent paper?

10 A It was drawn on a semi-transparent paper. Game,
11 Source. Q List: Do you know where that paper is now?

12 A No. It was in Bally's possession when I left
13 their employment. a software listing of one stage of the

14 Q Were these actually three separate sheets?

15 A Yes. listing is a program; is that right?

16 Q They were pasted together, and then this blueline
17 print was made from it, is that right, and taped?

18 A They were taped together at the time of drawing
19 the original and at the time of copying. in program about

20 Q The last time you saw the original, were these
21 three sheets taped together? to tell were so small, yes

22 Bally A Yes, they were.

23 Q Do you recall any other schematic diagrams of
24 the overall Bally Alley system? that was not in the Bally

25 Alley A There were never any schematic diagrams of the

1 complete game. There were just -- there were other circuit
2 diagrams connected with the game. They were never combined
3 on one schematic, at least not while I was at Bally.

4 MR. RIFKIN: May I see that, Mr. Katz?

5 MR. KATZ: If you treat it carefully.

6 Q (BY MR. KATZ) Mr. Foster, you handed me another
7 document which appears to be a listing, a program listing.
8 It's bound in plastic covers with an edge cap. Would you
9 identify that.

10 A It is titled "Eo493, Bally Alley, Bowling Game,
11 Source Listing, Source Tape 21."

12 Q What is this?

13 A It is a software listing of one stage of the
14 development of the software in the Bally Alley game.

15 Q This listing is a program; is that right?

16 A That's correct.

17 Q Did you prepare this listing?

18 A Yes, I did.

19 Q Did you prepare the underlying program also?

20 A Yes.

21 Q Was this done while you were an employee of
22 Bally?

23 A Yes.

24 Q Was this the program that was used in the Bally
25 Alley game in its commercial version?

1 A I have no knowledge. I don't know if it was the
2 final version or not.

3 Q Is this complete? Is this a complete program for
4 the game?

5 A I don't know. I suspect it is.

6 Q Could you tell me by a quick look?

7 A No.

8 Q Was this a program listing that you ran during
9 the development of that game?

10 A Yes.

11 Q What is this "Source Tape 21"?

12 A Each time a new assembly of the program was done,
13 I allocated a sequential number to it so it would not be
14 confused with earlier assemblies. But I have no idea what
15 later assemblies may have followed that.

16 Q What else do you have? One other document in
17 a yellow plastic cover with a yellow edge. Could you
18 identify that?

19 A That is "Simulator 8," and there is a notation
20 used to simulate the ROM, R-O-M, used in the bowling game.

21 Q Is that this document?

22 A While designing the game, it was necessary to
23 simulate some portions of the game on an additional computer
24 due to the unavailability of the components which this item
25 simulated.

1 Q What components were those?

2 A In particular, the ROM which contained the
3 bowling pin patterns.

4 Q Those were unavailable at the time?

5 A No. The component required masking and
6 evaluating. There were tooling charges, and it had to
7 be evaluated and checked before you committed for these
8 tooling charges. And this separate computer was used to
9 simulate that component until the final version was
10 determined.

11 Q Did you prepare this program?

12 A Yes, I did.

13 Q Are these hand written notes on it?

14 A Yes.

15 Q Could I borrow these? I won't go away with them.
16 Are there any other documents?

17 MR. MEYERS: We will advise you that the
18 additional documents brought pursuant to the subpoena are
19 correspondence between the witness and counsel and will not
20 be produced on the grounds of the attorney-client privilege.

21 MR. KATZ: Would you identify the documents on
22 the record?

23 MR. MEYERS: I would be glad to identify the
24 nature of the documents. The documents are all letters from
25 myself to Mr. Foster. The first one is dated July 11, 1979;

1 second one is dated August 10, 1979; and the third one is
2 dated September 14, 1979.

3 MR. WELSH: The third one was August 14?

4 A MR. MEYERS: September 14.

5 Q (BY MR. KATZ) Are there any other documents?

6 A That is all I have.

7 Q With respect to the request for documents, in
8 number 7, "All documents which relate or refer to the design
9 or development of any solid-state microprocessor-controlled
10 game or amusement apparatus dated, prepared, or originated
11 prior to 1976." Did you note that request?

12 A Yes.

13 Q Did you have any documents which would fall into
14 that category?

15 A Not that I can identify as having originated
16 prior to 1976.

17 Q I have a copy of what appears to be your
18 affidavit, signed and notarized, which I would like to have
19 marked as Plaintiff's Exhibit BD 102.

20 A (Plaintiff's Exhibit BD 102 marked for
21 identification.)

22 A MR. RIFKIN: That's the Colin E. Foster
23 affidavit?

24 A MR. WELSH: Yes.
25 Q (BY MR. KATZ) I will show you what has been

1 marked now as Plaintiff's Exhibit BD 102, and ask you if you
2 recognize that to be the affidavit that you made in
3 connection with this matter?

4 A This is a copy of the affidavit.
5 Q Did you sign that affidavit on the 15th day of
6 September, 1979?

7 A Yes, I did.

8 Q And that's your signature?

9 A That is.
10 Q Was that subscribed to before that particular

11 notary, Beverly Higgins?

12 A Yes, it was.

13 Q On that day?

14 A Yes.

15 Q Who prepared that affidavit?

16 A It was prepared by counsel.

17 Q Did you read the affidavit before you signed it?

18 A Yes, I did. Mr. Meyers concerning this litigation.

19 Q When was that?

20 A September 15. I told him I did.

21 Q On that day?

22 A Yes.

23 Q Why did you make that affidavit?

24 A I had had discussions with Mr. Meyers, and he

25 asked me if I would be prepared to make an affidavit.

1 said I would be prepared to. And that's why I signed it.
2 That's why we made the affidavit.

3 Q What was your purpose for making that affidavit?

4 A I understood there was some litigation between
5 Bally Manufacturing and Game Plan. Having been associated
6 with the Bally Alley, Bally Manufacturing, and Game Plan,
7 I felt that any light I could shed on the matter would be
8 helpful to all parties.

9 Q Were you asked to make the affidavit by Game
10 Plan or any representative of Game Plan?

11 A They asked me if I would make an affidavit. I
12 volunteered to.

13 Q Who asked you?

14 A Mr. Meyers.

15 Q Did anyone else at Game Plan ask you?

16 A No.

17 Q Did you ever have any discussions with anyone
18 at Game Plan other than Mr. Meyers concerning this litigation?

19 A At one stage Wendel McAdams asked me if I
20 designed the Bally Alley. I told him I did.

21 Q Was there any other discussion?

22 A That's all I recall.

23 Q When we talked about "litigation," what's your
24 understanding of what that litigation is?

25 A It is my understanding that Bally Manufacturing

1 has or has applied for a patent on a pinball game and they
2 believe the pinball games made by some other manufacturers
3 contravenes that patent.

4 Q Including Game Plan's?

5 A Yes.

6 Q Is it your understanding that those are the
7 pinball games of Game Plan which contravene that patent --
8 would those be the pinball games that you handle for Game
9 Plan?

10 MR. MEYERS: Counsel, do you want to provide a
11 foundation for that question? No foundation as to whether
12 he has any understanding whatsoever. I think the question
13 is premature at this time.

14 MR. KATZ: If the witness understands the
15 question, I will leave the question as it is.

16 THE WITNESS: I have no idea. I have not read
17 the Bally patent. I don't know what "game" is referred to
18 specifically.

19 Q (BY MR. KATZ) But it is true that Casino
20 Electronics handles all of the types of pinball games, as
21 far as you know, that Game Plan makes; is that right?

22 A So far as I know.

23 Q Is it your understanding that Game Plan was sued
24 by Bally Manufacturing --

25 MR. MEYERS: If he has any understanding.

THE WITNESS: Yes.

Q (BY MR. KATZ) Is that your understanding?

A Yes, I understand that Bally Manufacturing is suing Game Plan.

Q Do you know who the other parties are or do you have any belief as to who the other parties are?

A I have read their names on the documents that I showed you.

Q When did you or Casino Electronics first retain Mr. Meyers or his firm as legal counsel?

MR. MEYERS: I will object to that question and instruct the witness not to answer on the ground of attorney-client privilege.

MR. KATZ: As to when he retained you?

MR. MEYERS: That's correct.

Q (BY MR. KATZ) When did you first or when did you or your Casino Electronics first retain Mr. Meyers in connection with this matter as your counsel?

MR. MEYERS: What "matter," counsel? Your question is indefinite.

MR. KATZ: The matter of this affidavit.

MR. MEYERS: That presumes that someone was retained by him as counsel for the affidavit. I don't know whether that is a valid assumption.

Q (BY MR. KATZ) Was Mr. Meyers or his firm your

1 counsel at the time that you made this affidavit? or we were
2 supposed to MR. MEYERS: For what purpose, counsel?

3 Q (BY MR. KATZ) For any purpose. approximately.

4 A It's my understanding that he was not.

5 Q He was not your counsel at the time? going to

6 resume A At 1 Right.

7 Q He was Game Plan's counsel as far as you knew?

8 A As far as I knew. did we'd shoot for 1:15.

9 Q What did Mr. Meyers tell you in connection with
10 the making of this affidavit? Foster, have you had anything
11 to do with it? To summarize it, he said that information
12 regarding the design of the Bally Alley could be pertinent
13 to the litigation, and that he would like to have me make
14 an affidavit with regard to that information.

15 Q Did he ever meet with you in that regard?

16 A Yes. what was the location?

17 Q When was that? counsel -- well --

18 A I don't recall the date. three locations.

19 Q Was it in July of '79? or those?

20 A I think it was more like August. the Silver Nugget.

21 Q MR. MEYERS: Do you want to go ahead? any

22 Game Plan's MR. KATZ: We will take a noon recess until 1:15.

23 A No. (At 12:10 p.m., a noon recess was taken
24 until 1:45 p.m. of the same day.) Plan slots presently at

25 your place MR. RIFKIN: Before we resume, I'd like the

1 record to show that it is thirty-five minutes after we were
2 supposed to resume. 1 you first have Game Plan slots at your

3 place of bus MR. KATZ: My watch says 1:44, approximately.

4 MR. WELSH: We broke at 12:10. explain the line

5 of question MR. MEYERS: You indicated we were going to

6 resume at 1:15. KATZ: Can you get it when he is talking at

7 the same time MR. KATZ: I thought we said 1:30.

8 MR. WELSH: We said we'd shoot for 1:15.

9 MR. KATZ: I am sorry. answering first?

10 Q (BY MR. KATZ) Mr. Foster, have you had anything
11 to do with placing any slots from Game Plan into any this
12 location?

13 A Yes. MEYERS: I will object to the question on
14 the grounds What was that? I will consult with the witness
15 just a moment. I acted as the distributor.

16 Q And what was the location? (the record.)

17 MR. MEYERS: Counsel -- well -- objection on the
18 grounds that THE WITNESS: There are three locations. relevant

19 to the Q (BY MR. KATZ) What are those?

20 A The Dunes, the Silverbird, and the Silver Nugget.

21 Q Did you have anything to do with placing any
22 Game Plan slots on location at Caesar's Palace? lines first
23 arrive A at No. plant. It's within the last year.

24 Q Do you have any Game Plan slots presently at
25 your place of business?

1 A Yes. I would say within twelve months of this date.

2 Q When did you first have Game Plan slots at your
3 place of business?

4 Defendant's MR. MEYERS: Counsel, can you explain the line
5 of questioning, please.

6 handwritten MR. KATZ: Can you get it when he is talking at
7 the same time?

8 THE REPORTER: Yes. Alley service manual. That

9 was a copy. THE WITNESS: Who is answering first?

10 A MR. KATZ: I would like to have an answer from
11 the witness. I don't intend to explain relevancy at this
12 point.

A Yes, I know Don Zanolla.

13 Q MR. MEYERS: I will object to the question on
14 the grounds of relevance, and I will consult with the witness
15 just a moment.

16 A Yes, I (Discussion held off the record.)

17 Q MR. MEYERS: I will enter my objection on the
18 grounds that this line of questioning is totally irrelevant
19 to the subject matter of this case.

20 Q (BY MR. KATZ) Will the witness answer the
21 question?

22 far as A you I am not sure what date the slot machines first
23 arrived at our plant. It's within the last year.

24 Q Within 1979 you mean, or within a year, this
25 past year through--

A I would say within twelve months of this date.

Q I show you, Mr. Foster, what has already been marked previously in this patent infringement action as Defendant's Exhibit DW 4 and which has been identified as the Bally Alley service manual with some additional handwritten notes in it at different places in the manual. I'd like you to take a look at it and see if you would agree with that, that that's a Bally Alley service manual. That was a copy produced by Mr. Zanolla.

A It appears to be.

Q Do you know a person by the name of Don Zanolla?

A Yes, I know Don Zanolla.

Q How do you know him?

A I employed him when I was at Bally Manufacturing.

Q Did you hire him?

A Yes, I did.

Q What was his position?

A He was a project engineer.

Q Do you recall generally when that occurred?

A No.

Q Did he ever work on the Bally Alley project, as far as you know?

A Most of the engineers under me worked on some section at some time or other of the Bally Alley.

Q That would include Mr. Zanolla?

1 testin A y as Yes. ng the drawing or copy of the drawing that

2 was p: Q uced When is the last time you talked to Mr. Zanolla

3 or had any contact with him? Do you recall? n this matter

4 we do A c: About eighteen months, two years ago.

5 Q In connection with what? the same except for

6 the ad A tion Mr. Zanolla wanted references with regard to the

7 work he did while I was in charge with regard to getting line

8 basically education credits for work experience in connection

9 with a course he was doing or something to that effect.

10 addit: Q 3 an Did it have anything to do with the Bally Alley?

11 access A lly Nothing at all. same time.

12 Q What came of that, if anything? educed later?

13 A I gave him the information he required. n order

14 they o Q rse. I refer in that manual to a page 45, which bears

15 a document production number, 0076, which is a fold-out sheet

16 Now, other than the markings in blue on this page, do you

17 recognize the subject matter that's disclosed on that page?

18 A Yes, I do. nk so. I think the one in this manual

19 is pro Q bly Do you recognize the writing in blue on it?

20 A No, I don't. underlying drawing?

21 Q Referring to the underlying drawing, that is the

22 material not in blue, you say you recognize that subject ng

23 matter. What do you recognize it to be?

24 A It's a control board for the Bally Alley game.

25 Q Is this what you referred to earlier in your

1 testimony as being the drawing or copy of the drawing that
2 was produced from your file in the form of a blueline print?

3 A The blueprint and the schematic in this matter
4 are both copies from the original.

5 Q I see. So they should be the same except for
6 the additional blue markings?

7 A Not necessarily. The time at which this blueline
8 print was taken from the original was probably prior to
9 preparing this document in the manual, and there maybe
10 additions and deletions in the meantime. They weren't
11 necessarily produced at the same time.

12 Q But the one in the manual was produced later?

13 A Not necessarily. I have no idea in which order
14 they occurred.

15 Q Do you know if the blueline print schematic was
16 the final circuit used in the Bally Alley in the commercial
17 unit?

18 A I don't think so. I think the one in this manual
19 is probably more likely the final version.

20 Q Who made that underlying drawing?

21 A I did.

22 Q I refer your attention to a block in the drawing
23 marked E -- what is that? -- 62012?

24 A Right.

25 Q Is that in your printing?

1 A Yes.

2 Q What is that block supposed to represent?

3 A That's the central processor unit of the
4 microprocessor in the control board.

5 Q These initials "CPU," is that in your hand?

6 A Yes.

7 Q What does that designate?

8 A They stand for the words central processor unit.

9 Q Is that a standard designation?

10 A It's not uncommon.

11 Q Likewise, on this block above it, there is a
12 designation "E620132." Is that in your hand?

13 A Yes, it is.

14 Q And the initials "RAM"?

15 A Yes.

16 Q And what is that unit?

17 A That is a random access memory. The letters
18 "RAM" stand for random access memory.

19 Q And with respect to E62014, that's in your hand
20 isn't it?

21 A Yes.

22 Q And the initials ROM, that's in your hand, also?

23 A Yes.

24 Q What does that unit designate?

25 A That's our read only memory.

1 andiv Q The same thing is true with respect to the
2 other blocks, E62015 and E62016 and E62017? as a unit?

3 mean A The That's correct, or?

4 Q Those are all --lding blocks for making up
5 micro. Acces. Read only memories. microprocessors would use
6 differ Q Read only memories. And those were all written
7 by you? But you would typically use the INTEL building

8 blocks A Yes. is distinguished from using one building

9 block Q And you put the little initials in the drawing?

10 comp A Yes.

11 Q I note there is a note on the bottom, and it
12 says, "Note. First 500 units have a 400 2-2 extra RAM." Is
13 that in your handwriting? Counsel, I am not sure if it is his

14 exper A Yes, it is.

15 Q Do the initials "RAM" stand for random access
16 memory?

17 you A They do.

18 Q What is meant by "400 2-2"?

19 A That's an INTEL part. INTEL Manufacturing
20 manufactured the chips that we used in that microprocessor.

21 parts Q And they also manufactured the other chips, the
22 chips used for the CPU and the RAM?

23 A Yes, they do manufacture those chips.

24 Q Do those come as a set?

25 true? A They can be bought as a set. They can be bought

1 individually.

2 Q Are they generally used together as a set? I
3 mean of the same manufacturer?

4 A They are all building blocks for making up
5 microprocessors. Different microprocessors would use
6 different combinations and different sets.

7 Q But you would typically use the INTEL building
8 blocks together as distinguished from using one building
9 block from INTEL and one building block from some other
10 company?

11 MR. MEYERS: Counsel -- he date?

12 Q (BY MR. KATZ) Is that true? and think about it.

13 MR. MEYERS: Counsel, you are asking in his
14 experience?

15 MR. KATZ: Yes.

16 MR. MEYERS: Does that apply to all the questions
17 you have asked?

18 MR. KATZ: Based on his experience.

19 THE WITNESS: In my experience, there is no
20 necessity to have all INTEL parts. You can intermix different
21 parts from different manufacturers.

22 Q (BY MR. KATZ) Now? At this time? through

23 A Then, too.

24 Q At the time that you drew this drawing, was that
25 true? Q I don't know if you mentioned any other dates.

1 A Yes.

2 Q Do you know when that was?

3 A I don't know the date specifically. We could
4 refer to the documents and determine a date approximately.

5 Q What other documents would you --

6 A I think we made mention in my affidavit of the
7 time in which this work was done.

8 Q What was your basis for the mention in your
9 affidavit for when the work was done?

10 A You mean how did I determine that date?

11 Q Yes. How did you fix the date?

12 A I had more time to sit down and think about it.

13 Q It was based on your recollection?

14 A It was based on my recollection plus references
15 to my dates of employment at Bally.

16 Q Would you say that was in 1974?

17 A No. It was prior to that.

18 Q 1972?

19 A That's closer.

20 Q The period that you mentioned in your affidavit,
21 I believe, was -- I will show you a copy of it. Your period
22 of employment you indicated was from June, 1968, through
23 March, 1974.

24 A Then, based on those figures --

25 Q I don't know if you mentioned any other dates.

1 A Based on those figures, the schematics would
2 have been probably done in 1973 -- towards the end of 1973.
3 Q Did you ever actually construct a circuitry with
4 those components, these building blocks that are shown on it
5 page 45, which we have just referred to?

6 A Yes. PART 2: Yes.

7 Q Was it about that same time? at the time the
8 circuit was Yes. and the product was designed?

9 Q Is there a name for this portion of the circuitry
10 that constitutes or comprises those particular blocks that
11 we mentioned, that is, the CPU, the RAM, and the ROM blocks?

12 A We did not refer to that section of the schematic
13 in particular with a specific name.

14 Q Does it have a name? Would you refer to it as
15 a microcomputer? EXPRS: Would you put that in a time frame,
16 course A Those chips on their own would form the heart
17 of the microcomputer. to be then, or what does he consider
18 it to Q now What else would be involved in the microcomputer
19 that forms the heart of it? Are those things shown in the
20 drawing?

21 A It is a very gray area to say where the
22 microcomputer starts and leaves off. In general, when you
23 use microcomputer components on a printed circuit board,
24 one tends to refer to the whole circuit board as being a
25 microcomputer. page 45

1 Q You referred earlier to the CPU being the
2 central processing unit of the microprocessor. What would
3 you consider the microprocessor here to be?

4 A MR. MEYERS: Counsel, what he today considers it
5 to be? Was that an INTM part?

6 A MR. KATZ: Yes.

7 Q MR. MEYERS: Or what happened at the time the
8 circuit was drawn and the product was designed?

9 A MR. KATZ: No, what he considers it today. That
10 is in the context of the way he referred to it in his answer
11 before. Yes.

12 Q MR. HARDING: Would you repeat the question,
13 please. Yes.

14 Q Did you (The pending question was read.) this
15 Bally Alley MR. MEYERS: Would you put that in a time frame,

16 counsel? It seems to me it's indefinite. Are you asking
17 what he considered it to be then, or what does he consider
18 it to be now? I don't understand.

19 Q (BY MR. KATZ) What do you consider it to be
20 today? He said INTM exclusively. I believe you are

21 A I would consider the whole board to be the
22 microprocessor. At the time that you made this drawing

23 Q 45, By "whole board," what are you referring to?

24 A Everything contained on this schematic.

25 Q On page 45? what my feelings were at that time.

1 A Yes. Referring now to your affidavit, Plaintiff's

2 Q Referring to the RAM, E62013 -- I hope I got
3 that right --

4 A That's correct.

5 Q Was that an INTEL part?

6 A Yes, it was. is a summary of lengthy discussions

7 Q And was E62014 the ROM an INTEL part? I had with

8 A Yes. represented the content of our discussions and seemed to me

9 Q Likewise, were the other ROM chips an INTEL
10 part?

11 A Yes. Did these extensive discussions with Mr. Meyers
occur as a meeting with himself --

12 Q So these were all INTEL parts; is that right?

13 A Yes. was one meeting?

14 Q Did you ever use in the construction of this
15 Bally Alley circuit a part of a manufacturer other than
16 INTEL with respect to those particular parts? it was --

17 A You mean with regard to these six blocks in the
18 middle?

19 Q Yes. brought that you produced or those letters which you
brought here which Mr. Meyers has, the ones he identified?

20 A We used INTEL exclusively. I assume you are
21 referring to production?

22 Q Yes. At the time that you made this drawing
23 on page 45, did you consider the entire board to be a
24 microprocessor? that meeting was with Mr. Meyers.

25 A I don't know what my feelings were at that time.

1 Q Referring now to your affidavit, Plaintiff's
2 Exhibit BD 102, did you compose, actually compose the
3 content of this affidavit?

4 A Not directly.

5 Q What do you mean "not directly"?

6 A The affidavit is a summary of lengthy discussions
7 I had with Mr. Meyers, and I read it through, and it
8 represented the content of our discussions and seemed to me
9 to be a reasonable summary of our discussions.

10 Q Did these extensive discussions with Mr. Meyers
11 occur at a meeting with himself --

12 A There was a meeting. brief discussions by

13 Q There was one meeting?

14 A Yes. were prior?

15 Q When was that meeting?

16 A I'm not sure of the exact date. It was --

17 Q Could you tell with reference to any of the
18 documents that you produced or those letters which you
19 brought here of which Mr. Meyers has, the ones he identified?

20 A I am not sure. I could refer to my diary. I
21 don't have my diary with me. To these discussions, did Mr. Meyers ask you any

22 Q I ask you to look at the letters that you brought
23 that Mr. Meyers has and see if you could tell from those
24 letters when that meeting was with Mr. Meyers.

25 A I would say the date was approximately August 22

1 to August 24, in that period, of this year.

2 Q Is it true that you had discussions -- some of
3 the discussions you referred to took place at that meeting
4 with Mr. Meyers?

5 A Yes.

6 Q Did you have any meetings with him prior to that
7 meeting at which these discussions also took place?

8 A No.

9 Q Did you have any discussions with him concerning
10 this matter, the affidavit, before this meeting, perhaps
11 by telephone?

12 A There were some very brief discussions by
13 telephone.

14 Q They were prior?

15 A Yes.

16 Q Were there also some subsequent?

17 A Not that I know of -- not that I can remember.

18 Q Did you take any notes with respect to any of
19 these discussions with Mr. Meyers?

20 A No.

21 Q In these discussions, did Mr. Meyers ask you any
22 questions?

23 A Numerous.

24 Q What were those questions?

25 A They were questions pertaining to the subject

1 matter contained in the affidavit.

2 Q Do you have any more specific recollection of
3 the questions? *just marked as Plaintiff's Exhibit PD 123. Do*
4 you *me* A If He asked questions in detail about how sections
5 of the schematic of the Bally Alley operated. He asked
6 questions regarding the basic structure of the communications
7 within the components of the Bally Alley game.

8 Q Any other kind of questions? *in that copy. I*
9 don't A And He asked me some preliminary questions similar
10 to the statement in the affidavit with regard to my
11 experience, how long I'd worked at Bally, and had I designed
12 the Bally Alley -- questions relating to it. *record.)*

13 Q Any other questions? *relate that we can use the*
14 copy *Asterisk* That's all I remember at this time. *as keep this*

15 Q Did you give him answers to his questions?

16 A Yes. *That's okay with me.*

17 Q Were there any questions he asked which you
18 didn't give him answers to? *long as the original is available*

19 A If I don't remember any specific ones.

20 Q Did you have any materials to refer to in order
21 to answer his questions? *Plaintiff's Exhibit PD 123. Do*

22 A I had a photocopy of the Bally Alley service
23 manual which I showed you in those earlier documents.

24 Q That's this particular manual which is marked
25 "54 pages" at the top?

1 A That's the one, any more material than what I had

2 here. MR. KATZ: I would like to have this copy of the

3 Bally Alley manual marked as Plaintiff's Exhibit BD 103. Do
4 you mind if we mark this copy? when you received this Bally

5 Alley manual? THE WITNESS: I don't mind if you mark it.

6 manual? MR. MEYERS: Can we arrange either to have a
7 copy made and return the original to him? in my possession

8 within a year? THE WITNESS: I want to retain that copy. I don't
9 don't mind your copying it if you want to.

10 Q MR. KATZ: We will make a copy. August 22 and 24

11 of this year. MR. RIFKIN: Let's go off the record.

12 A Yes. (Discussion held off the record.)

13 Q MR. KATZ: Can we stipulate that we can use the
14 copy instead of the original, and let the witness keep this
15 original? I don't remember.

16 Q MR. RIFKIN: That's okay with me, as in your

17 affidavit with MR. KATZ: Are there any objections?

18 A MR. HARDING: As long as the original is always
19 available for future use if it's needed. as to this

20 interview, MR. MEYERS: Fine. was made of the interview,
21 and I recognize that (Plaintiff's Exhibit BD 103 marked for re
22 identification.) transcription of that interview.

23 Q (BY MR. KATZ) Did you have any other materials
24 to refer to in providing Mr. Meyers with the answers to his
25 questions? No, I don't.

1 A I didn't need any more material than what I had
2 here. A No, I don't.

3 Q Can you tell from referring to any of these
4 documents that you have brought when you received this Bally
5 Alley manual -- I should say a copy of the Bally Alley
6 manual which has been marked BD 103? A Yes, if it has been

7 A Yes. It's my recollection it came in my possession
8 within a period of a month prior to the interview at which
9 this affidavit was produced.

10 Q That was in the period between August 22 and 24
11 of this year? A Yes.

12 A Yes.

13 Q Did Mr. Meyers tell you he was going to send you
14 this copy before you received it?

15 A I don't remember.

16 Q The specific language that was used in your
17 affidavit was not composed by you; is that right?

18 A I would say a large portion of it was composed
19 by me. The interview was conducted similar to this
20 interview, and a tape recording was made of the interview,
21 and I recognize many of the paragraphs in here as being more
22 or less a direct transcription of that interview.

23 Q Do you have a copy of the tape or a transcription
24 of the taped interview?

25 A No, I don't.

1 Q Do you know who has it?

2 A No, I don't.

3 Q Do you know who made it, a tape?

4 A Mr. Meyers made it.

5 Q MR. KATZ: I'd like to request a copy from
6 Mr. Meyers of the transcript of the tape, if it has been
7 transcribed, or have access to the tape to have our own
8 transcription made if it has not been transcribed.

9 A MR. MEYERS: We will take your request under
10 advisement and let you know.

11 A MR. KATZ: Do you have a transcript of it, of
12 the tape? You are pointing to Mr. Harding sitting against
13 the wall?

13 MR. MEYERS: I will have to let you know.

14 A MR. KATZ: Is there some time by which you'd
15 be able to make that determination?

16 A MR. MEYERS: Sure. I will let you know within
17 a week. MR. KIPPIN: Nobody invited me.

18 Q (BY MR. KATZ) This interview which occurred
19 between August 22 and 24 with Mr. Meyers, did that last more
20 than one day? You mean written notes or the tape recording?

21 A No. Written notes.

22 Q How long did it last? Notes.

23 A About four hours, I think, approximately. during

24 Q Was it during regular working hours?

25 A Yes. I think he did.

1 Q During the week? On a weekday? One discussions

2 with Mr. Meyer Yes. were recorded?

3 Q Was it at your place of business?

4 A Yes. you had any previous contact with Mr. Harding

5 Q Casino Electronics?

6 A Yes. you had any subsequent contact with

7 Mr. Harding Q Was anyone else present besides Mr. Meyers at
8 that discussion?

9 A Yes. Mr. Harding or Mr. Meyers show you any

10 materials? Q Who else was present?

11 A What's the name? Rally Alley manual in the

12 process Q of You are pointing to Mr. Harding sitting against
13 the wall? pages in the manual.

14 A I was after the first name.

15 Q Was anyone else there?

16 A No. other materials used?

17 A MR. RIFKIN: Nobody invited me.

18 Q (BY MR. KATZ) Did you observe Mr. Meyers taking
19 notes during the meeting, during that interview? a copy of

20 from A You mean written notes or the tape recording?

21 Q Written notes. that document was presented at the

22 meeting A I think he made some notes.

23 Q Did you observe Mr. Harding making notes during
24 that interview? I am sure that during the conversation there

25 were A I think he did. I recollect specifically what

1 Q Do you know whether any telephone discussions
2 with Mr. Meyers were recorded?

3 A Not to my knowledge.

4 Q Had you had any previous contact with Mr. Harding?

5 A No.

6 Q Have you had any subsequent contact with
7 Mr. Harding prior to today?

8 A No.

9 Q Did Mr. Harding or Mr. Meyers show you any
10 materials during that interview?

11 A We only used that Bally Alley manual in the
12 process of the discussions. They pointed my attention to
13 various pages in the manual.

14 Q In the manual?

15 A Yes.

16 Q Any other materials used?

17 A Not that I recollect.

18 Q Did they make any reference to the patent that's
19 involved in this litigation which you showed me a copy of
20 from your file?

21 A Yes. I think that document was presented at the
22 meeting.

23 Q Was anything said about it?

24 A I feel sure that during the conversation things
25 were said about it. I don't recollect specifically what

1 things.

2 Q Do you recall the substance?

3 A I'm sure the situation was explained that that
4 was the subject of the lawsuit and that was the reason for
5 wanting that affidavit.

6 Q Do you recall whether Mr. Meyers or Mr. Harding
7 referred to materials in connection with the Bally Alley --
8 terms such as cyclicly and sequentially? Those particular
9 terms?

10 A Yes.

11 Q And in what regard?

12 A They were interested in whether those materials
13 applied to the multiplexing structure in the Bally Alley game.

14 Q Had you prior to any meetings with Mr. Meyers
15 or Mr. Harding ever used the terms cyclicly or sequentially
16 in describing any part of the Bally Alley game?

17 A I have many times used words which have exactly
18 that meaning. I doubt if I actually used their specific
19 words.

20 Q Do you recall what terms you actually used in
21 the past, that is, prior to these meetings, in referring to
22 that part of the Bally Alley or any part of the Bally Alley?

23 A I don't remember specifically what terms I would
24 have used in conversations.

25 MR. RIFKIN: I would like to hear the previous

1 two questions and answers, if I might, the ones beginning
2 with "cyclicly" and "sequentially."

3 A It was (The previous two questions and answers
4 were read.) with a bill for time spent at their interview.

5 Q (BY MR. KATZ) In connection with what part of
6 the Bally Alley did you use those terms?

7 A I did not use those specific terms. But in
8 describing sequential multiplexing procedures I am sure there
9 were many discussions with regard to the thought of addressing
10 the display boards and the input switches.

11 Q Approximately how much time would you estimate
12 you have spent in connection with this affidavit or this
13 litigation? Do you have any belief as to who is to pay?

14 A I spent the approximately four hours during that
15 interview. Approximately another hour and a half at the
16 time I read this copy and signed it. Plus short telephone
17 conversations prior to and subsequent. Will instruct him not

18 Q What would you estimate the total amount of time
19 to be? MR. KATZ: I didn't ask what he supposes.

20 A Maximum of six hours. believes.

21 Q Were you paid for your time in connection with
22 this matter? him a question as to what he believes to be

23 A No, I have not been paid. the case?

24 Q Do you have an understanding that you are to be
25 paid in connection with this matter? for the question.

1 A Yes.

2 Q By whom?

3 A It was my understanding that I should present
4 Mr. Meyers with a bill for time spent at their interview.

5 Q What is your understanding as to who is to pay
6 the bill?

7 A Mr. Meyers would be the one paying the invoice.

8 Q What's your understanding as to who Mr. Meyers is
9 working for? Do you have any understanding with respect as
10 to who would ultimately pay for that?

11 A That's Mr. Meyers' concern. He said to send the
12 invoice to him.

13 Q Do you have any belief as to who is to pay?

14 MR. MEYERS: I will object, counsel. We are not
15 here to inquire into his beliefs and suppositions, and I
16 will ask the witness to restrict himself to testifying to
17 what he knows. And based on that, I will instruct him not
18 to answer the question as to what he believes or supposes.

19 MR. KATZ: I didn't ask what he supposes.

20 MR. MEYERS: What he believes.

21 MR. KATZ: You are contending that it's improper
22 for me to ask him a question as to what he believes to be
23 the case? Is that your position?

24 MR. MEYERS: I have instructed him not to answer
25 unless there is some factual basis for the question.

Q MR. HARDING: I contend it's improper unless there is a direct factual basis for the response. If it's pure speculation, then it's entirely improper.

Q (BY MR. KATZ) Who first brought up the subject for this work?

A Mr. Meyers.

Q When was that? Was it prior to the August meeting?

A It was during the meeting.

Q It was during that meeting?

A Yes.

Q Was Mr. Harding there at the time it was brought up?

A I think so.

Q Did anyone say anything to indicate who was to eventually pay for this work?

A I don't remember.

Q Have you had any discussions with anyone at Game Plan or AES Technology with respect to this matter?

A You mean at any time?

Q At any time.

A Yes. (The pending answer was read.)

Q With whom?

A Wendel McAdams on one occasion asked me if I was the designer of the Bally Alley, and I told him I was.

1 Q Was that the total extent of it, of any
2 discussions you had in connection with this matter with
3 anyone at Game Plan or anybody at AES Technology? Anything --

4 MR. MEYERS: Counsel, I will assume you are
5 talking about the events that lead up to and the execution
6 of the affidavit?

7 MR. KATZ: Yes.

8 THE WITNESS: I can't be sure there weren't
9 any other minor conversations. But so far as I am concerned,
10 there was only the one when they found out I was the
11 designer. Yes.

12 Q (BY MR. KATZ) Was there anyone with anyone at
13 Game Plan or AES Technology concerning the patent that's
14 involved in this litigation which you have a copy of in your
15 file? A I read it thoroughly.

16 A Not that I know of, except in the -- I should
17 add that Wendel explained the reason for his question as to
18 whether I was the designer of the Bally Alley, and although
19 I don't recall it, I'm sure he explained this suit at that
20 time.

21 MR. KATZ: Could I have the answer read back.

22 (The pending answer was read.)

23 Q (BY MR. KATZ) I believe you indicated earlier
24 you didn't know from whom you received your affidavit; is
25 that true?

1 A That's not true.

2 Q It came from Mr. Meyers?

3 A It did.

4 Q Do you recall when you received it?

5 A I answered that question earlier. It was
6 received on the 15th of September.

7 Q Was that the first draft that you have seen of
8 the affidavit?

9 A Yes.

10 Q Was that the only draft of the affidavit?

11 A Yes.

12 Q Did you make any revisions at all?

13 A No.

14 Q What did you do when you received it?

15 A I read it thoroughly.

16 Q Then what did you do?

17 A Then I located a notary to have it signed.

18 Q Then did you send it back?

19 A Then I mailed it.

20 Q You sent it back to Mr. Gerson Meyers?

21 A I think I received from them -- there were three
22 copies that when to three different destinations.

23 Q Do you remember who the other two went to?

24 A I think one when to the Court and the last one
25 went to the patent office. I am not a 100 percent sure.

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1 Q But you did send them to these different
2 destinations, or did you just send them back to Mr. Meyers?

3 A No, there were pre-addressed envelopes in the
4 package. I placed them in the envelopes and put them in the
5 mail.

6 Q Was there anything else in the package besides
7 the pre-addressed envelopes?

8 A There was a cover letter instructing me on the
9 procedures to follow.

10 Q Is that the letter of September 14, 1979, which
11 you brought here?

12 A Yes.

13 MR. KATZ: I would like to indicate that it's
14 my position that the letters of July 11, '79, August 10, '79,
15 and September 14, '79, which were brought here by the witness
16 are not subject to attorney-client privilege on the basis
17 of the witness's testimony thus far, and that, if there was
18 any privilege, that it was waived.

19 MR. MEYERS: Well, there has certainly not been
20 any privilege waived. But I will take your point under
21 advisement and review the matter at the next recess, and then
22 give you my response immediately thereafter.

23 MR. KATZ: Thank you.

24 Q (BY MR. KATZ) Other than that cover letter of
25 September 14, 1979, were there any other materials in the

1 package? Did you make any copies of the material that

2 was in A No, except for the envelopes which we mentioned
3 already. There was --

4 Q I show you a document which you produced which
5 is entitled "Protest Under 37CFR, Section 1.291." It has
6 the block caption "Reissue Litigation," with a red or orange
7 marking pen. Was that in the packet, also? the manual?

8 A Yes, I think it was.

9 Q Was there anything else in the packet besides
10 that that you can recall? I will show you the materials that
11 you brought, and ask you if there was anything else that you
12 would recall as having been there? you with the highlighted
13 lines A and No. I think the only other thing in the package
14 was a check to cover the cost of mailing the two or three
15 envelopes that I had to mail. highlighted lines?

16 Q Did you read this paper, the protest?

17 A Yes, I did. who made the highlighted lines?

18 Q Was there anything else in the envelopes that
19 were sent to you other than the material that was already --

20 direct A Yes Some of the envelopes had material in them. I
21 don't recall anything but this document and the affidavit.

22 affidavit Q Do you recall any other covering letters of
23 transmittal, for example? the highlighting on the drawings

24 is a A Yes Not that I recall. They could have been included.

25 I just don't recall them. eting that you had were the lines

1 Q Did you make any copies of the material that
2 was in the letters --

3 A No. you given anyone specific instructions to

4 do that? Q I mean in the envelopes you mailed out?

5 A No. specifically to highlight them in colors.

6 Q In your reading of your affidavit, did you check
7 any of the statements that were made with the manual?

8 A No.

9 Q Did you ever have occasion again in going through
10 the affidavit before signing it to review the manual?

11 A It was not necessary. The package included the
12 drawings that you have in front of you with the highlighted
13 lines, and there was sufficient information there to check
14 the affidavit. to what you were to do?

15 Q Did you make the highlighted lines?

16 A No, I didn't. that I was under no obligation to

17 do it. Q He told me that you made the highlighted lines? be

18 summarized. A Not specifically. which I would have to sign in the

19 present. Q Did you give anyone directions, specific
20 directions to make the highlighted lines?

21 A During conversation prior to the writing of the
22 affidavit that was recorded, we discussed those particular
23 lines in detail. I'm sure the highlighting on the drawings
24 is a diagrammatic way of highlighting those discussions. of

25 this. Q But at the meeting that you had were the lines

1 highlighted in colors or anything? or?

2 A

No. I told him I would do the same for him that I'd

3 Q

Had you given anyone specific instructions to do that? I mean that would help the proceedings, I would be

4 A

Not specifically to highlight them in colors.

5 Q

Had you given anyone instructions to do anything in connection with this matter? today?

6 A

No -- I've been paid \$32. I think that's what it was.

7 MR. RIFKIN:

Could I have that last question and answer, please. I don't have any understandings with respect

8 to any other payment. (The pending question and answer were

9 read.) A

If Bally is willing to pay me, I'd be glad to

10 Q

(BY MR. KATZ) Did you receive instructions from Mr. Meyers as to what you were to do? I'm going to ask you

11 A

He advised me of the reason for taking the affidavit and advised me that I was under no obligation to do it. He told me that the recorded conversation would be summarized in an affidavit which I would have to sign in the presence of a notary, and explained in general the legal ramifications of what I was doing.

12 Q

What did he explain those legal ramifications to be? I'd draw up a statement, I'd have a notary come to my house

13 A

He said that it might possibly eventually result in my needing to appear in court or making a deposition of this kind.

1 Q Did you agree to do that?

2 A I told him I would do the same for him that I'd
3 do for Bally. If I could shed some light on the construction
4 of this game that would help the proceedings, I would be
5 happy to do so.

6 Q Do you have an expectation of being paid for the
7 time that you are spending here today?

8 A I have been paid \$32. I think that's what it
9 was.

10 Q You don't have any understandings with respect
11 to any other payment for today's time?

12 A If Bally is willing to pay me, I'd be glad to
13 accept it.

14 Q I don't believe that responds to the question.

15 A No, I don't have any expectation of being paid
16 at this time.

17 Q Looking at your affidavit, I'd like to refer
18 you to item paragraph 7 on page 2 near the bottom, and the
19 second sentence, which reads, "In fact, except for the
20 references in the service manual, Exhibit A, to a "computer,"
21 it would be extremely difficult to determine from the control
22 board drawing, page 45, that a programed microprocessor was
23 even used."

24 Do you agree with that statement
25 completely?

1 without A It depends on who is reviewing the schematic.
 2 Obviously, somebody who is very much experienced with
 3 microprocessors would have a better chance of recognizing it
 4 than someone who isn't.

5 MR. RIFKIN: I have to object to the question
 6 unless you let him read the whole paragraph. You referred
 7 him to number 7 and left out a sentence.

8 MR. KATZ: I left out two sentences, the
 9 preceding and the succeeding.

10 MR. RIFKIN: I object to not letting the witness
 11 see the entire paragraph.

12 MR. KATZ: I am letting him see the whole thing.
 13 He has the whole affidavit in front of him.

14 MR. RIFKIN: I am sorry. I didn't see that.

15 MR. KATZ: Could I have the question and answer
 16 read back.

17 (The pending question and answer were
 18 read.)

19 (BY MR. KATZ) I don't think you responded
 20 specifically to my question. I would like to have you
 21 answer the question.

22 A What is specifically the question?

23 MR. KATZ: Would you read the question again.

24 (The pending question was read.)

25 THE WITNESS: I can not answer that question

1 without the qualification I gave it earlier, "no"?

2 Q (BY MR. KATZ) That it depends on who is looking
3 at the material; is that right? chips exclusively.

4 A That's true, yes. It was a sixteen pin chip system,

5 then Q Going to the next sentence in that paragraph,

6 it states: "There is certainly no way to identify the
7 microprocessor system that was employed." Do you agree with
8 that statement? circuits used at that time and even now were

9 four A or Yes. sixteen pin. So the fact that it had sixteen

10 pins Q Do you believe that there is no way to identify

11 the microprocessor system that was employed? a microprocessor

12 at the A If you want me to get into details, it would

13 take a long time. It depends on what you mean by indicated

14 "microprocessor system." Do you mean identifying the style

15 of microprocessor system or the manufacturer or the part

16 numbers or the internal structure of the computer? I would

17 "system" Q What did you mean? a system of the computer

18 system A So It was meant to convey the difficulty of a just

19 identifying the manufacturer of the components.

20 Q But not the microprocessing system; is that
21 right? great microprocessor system that is it?

22 A It would be difficult to identify the
23 microprocessor system certainly in later times, but that
24 particular microprocessor system used sixteen pin chips,
25 which is most uncommon. I gave it earlier, I believe, that the

1 Q What do you mean by "most uncommon"?

2 A I mean that there has not been a computer before
3 or since that used sixteen pin chips exclusively.

4 Q So if you knew it was a sixteen pin chip system,
5 then you would know it was an INTEL system, right, because
6 there were no others; is that right?

7 A That's not entirely correct. Obviously, most of
8 the integrated circuits used at that time and even now were
9 fourteen or sixteen pin. So the fact that it had sixteen
10 pins did not identify it as a microprocessor. And the
11 National Company was also producing that same microprocessor
12 at that same time.

13 Q I guess I am confused. I thought you indicated
14 that only the INTEL system -- you said it was most unusual,
15 this system?

16 A That again depends on your definition of the word
17 "system." The National one was an exact copy of the INTEL
18 system. So in actual fact, they were the same system. Just
19 different manufacturers.

20 Q Then they would have been the same system, just
21 a different manufacturer; is that right?

22 A That's correct.

23 Q It was the same microprocessor system?

24 A Yes, on that definition of "system."

25 Q Also, you indicated earlier, I believe, that the

1 entire schematic of page 45 you would consider now to be
2 a microprocessor? at 45, the one that says, "In fact, except
3 for t A rel Yes. ces to the service manual, Exhibit A, is a
4 "cong Q e?" And that certainly was depicted on that page;
5 is that not right? drawing, page 45, that a programmed
6 micro A ces Yes. has even used." What did you mean by that
7 sente Q e? So isn't that true that there was a way from
8 that material to identify the microprocessor system employed
9 in the Bally Alley? e policy to disguise the contents of the
10 board A with I think we are getting into semantics on the
11 meaning of the word "system." e It was my feeling from that
12 schematic that it was difficult to identify INTEL as the
13 manufacturer. e those 'nuclos' e on them so that INTEL's name

14 would Q e? Would you still say that noting that at the
15 bottom of the drawing on page 45 you remember the notation
16 that referred to the INTEL figures 400 2-2 RAM, I believe?

17 A Yes. Most engineers are not familiar with the
18 400 2-2 RAM and would not recognize that as an INTEL part
19 number.

20 Q Would you believe that engineers who were working
21 with microprocessors would be familiar with that?

22 A Some of them.

23 Q Would you agree that even though you may
24 characterize it as difficult, it could still be determined?

25 A Of course.

Q Referring to the preceding sentence that we quoted before, that is, the one that says, "In fact, except for the references to the service manual, Exhibit A, to a "computer" it would be extremely difficult to determine from the control board drawing, page 45, that a programmed microprocessor was even used." What did you mean by that sentence?

A I meant that when we designed this game it was Bally's management's policy to disguise the contents of the board with regard to using a computer to make it difficult for competition to copy the game. In connection with that, we had INTEL put part numbers on the chips that you read out before with those numbers on them so that INTEL's name would not appear on the chips, if possible, to again make it difficult for competition to identify the construction of the board.

Q Was that notation for 400 2-2 RAM, was that a slip-up against that policy?

A Yes.

Q But again I don't know what you mean by this sentence, and I am going to ask you whether you are trying to say that you -- that it would be extremely difficult to determine that this was a programmed microprocessor in the system -- is that what you were trying to say?

A Yes.

1 Q Do you believe that the manual doesn't disclose
2 that fact? If it had a microprocessor, one who was familiar

3 A It doesn't hide the fact. It does not identify
4 the chips in detail making duplication difficult.

5 Q But does it not disclose that it is a processor.
6 microprocessor? Right, because it doesn't really perform unless

7 A Yes, it does. Right?

8 Q I refer you to page 5 in Exhibit DW-4, document
9 production number 0036, where it states, "Bally Alley
10 utilizes a microprocessor," and then in parentheses it says,
11 "(computer)" "to supervise all game functions." Paragraph item

12 A Uh-huh. 7, in the first sentence, it says, "Without previous

13 Q And then it's not your position, then, -- it's
14 not your position that it would be difficult to determine
15 that there was a microprocessor in the system, or that it
16 was a microprocessor system; is that right? Is your

17 A That's not correct. This paragraph 7 we were
18 referring to was speaking in connection with the schematic
19 diagram. It was not referring to the balance of the Bally
20 manual. Part numbers were not placed on the microprocessor,

21 Q So that if you looked at the balance of the
22 Bally Alley manual you would be able to determine that there
23 was a microprocessing system? microprocessor?

24 A You would not be able to determine the
25 manufacturer. You would be aware that there was a

1 microprocessor in use.

2 Q If it had a microprocessor, one who was familiar
3 with microprocessor computers would know that it would be
4 programmed; right?

5 A That's implicit in the name "microprocessor."

6 Q Right, because it doesn't really perform unless
7 it's programmed; is that right?

8 A That's correct.

9 MR. KATZ: Let's take a recess.
10 its correct meaning (Brief recess taken.)

11 Q (BY MR. KATZ) In connection with paragraph item
12 7, in the first sentence, it says, "Without previous
13 knowledge of the Bally Alley game, it would be difficult and
14 time consuming to obtain a clear understanding of the
15 operation of the computer control of the Bally Alley game
16 from the service manual, Exhibit A." What is your
17 understanding of that statement?

18 A That means if it was the first time you had seen
19 the schematic of the Bally Alley, due to the fact that the
20 INTEL part numbers were not placed on the microprocessor,
21 it would take significant additional analysis time to come
22 to the conclusion that it, in fact, was a microprocessor.

23 Q That what was a microprocessor?

24 A (No audible response.)

25 Q But the manual itself says "from the

1 microprocessor." construction, and its organization." Do you

2 A Again, I am referring specifically to the
3 schematic, not the manual. It says "Service Manual."

4 Q But that's not what it says. It says "from the
5 service manual." That you meant the schematic alone?

6 A The schematic, yes.

7 Q So with respect to this sentence, you would agree
8 now that that is not exactly right?

9 A No. It should read "from the schematic" to have
10 its correct meaning.

11 Q You also were referring to the identification
12 of the microprocessor manufacturer. Of course, the one
13 part number that apparently did slip out because it was in
14 the note that said "INTEL 400 2-2 RAM," with respect to
15 that identification, do you think it would be reasonable
16 to believe that a person experienced with microprocessors
17 seeing that would know that it was an INTEL part?

18 A Yes -- I think you said that in the note it said
19 "Intel part." The word "INTEL" was not there. It just had
20 the "400 2-2" part number and somebody experienced with
21 INTEL part numbers could recognize that. I was not aware of
22 that at the time of making this affidavit, that that note was
23 on the bottom of the schematic.

24 Q In paragraph 6, which I draw your attention to,
25 the first sentence says, "I recall the Bally Alley game, its

operation, its construction, and its organization." Do you agree with that statement in the affidavit?

A Yes.

Q Would you describe the operation of the Bally Alley game as it would appear to a player?

A The actual play part of the game?

Q Have you ever played the game?

A Many, many times. The actual play consists of holding your thumb on a play button --

Q Excuse me. Did you have to place a coin in first? It was a coin-operated game; isn't that right?

A It is, but I asked if you wanted a description of the actual play, and I was starting the description then to save time.

Q I think I would like to have you describe it as if you were a player coming up to the game so that I can get an idea of exactly what the player would perceive.

A The first thing a player would do would be to put coins in the coin entries.

Q Does it operate with one coin or more than one coin?

A Yes.

A It would take up to about forty coins.

Q Forty coins at one time?

A One after the other. As coins were placed in the coin entry, credits would be shown on the display.

1 Q Was that a seven-segment display?

2 A It was two digits, both seven-segment displays.
3 Having placed credits on the game, he would press the player-
4 up button on the control box the number of times there were
5 players to play the game, for example, three times for three
6 players. Each time you pressed the button, the number of
7 credits would ~~increment~~ by one count, and the number of
8 ~~decrement~~ ^{cf} players indicator would indicate how many players. The first
9 player-up lights would be indicating it was time for the
10 first player to commence.

11 Q What was the nature of the player-up light?

12 A From memory, there were incandescent lamps above
13 the score for that player. That player would then press his
14 player button causing a spot of light to move left and right
15 across the face of the game.

16 Q Excuse me. If you have no objection, perhaps I
17 can look at this Exhibit BD 103 where this says "player up."
18 Is that what you referred to as the "player-up light"?

19 A Yes. The lights were behind that section.

20 Q Those were incandescent lamps; is that right?

21 A Yes.

22 Q They were not digital displays?

23 A The score sections below the player-up were
24 digital displays.

25 Q But the player-up lights were not?

1 date A The boxes under the player-up were spare and
 2 strike indicators. It was actually -- by you have three
 3 block Q It was an incandescent light behind the
 4 individual players, the letters in the word "player-up"?
 5 we ha A Yes. From memory, there was more than one. If
 6 you a Q These boxes below that were strike and spare?
 7 What were those? What is the nature of those types of
 8 displays? ing until you have bowled the two balls after the
 9 first A No. When you are playing and scoring a bowling game,
 10 if you are familiar with that type of scoring, the score in
 11 you get on subsequent frames is a function of whether the
 12 previous frame or frames were strikes or spares. And in this
 13 type of display, it was necessary to show the strikes and
 14 spares of the previous frames because they had not been
 15 scored at any particular time in the game.ipping his answers
 16 with Q What was displayed in the block? What did the
 17 player perceive?

18 A From memory, a strike would show an X in the it
 19 box, and the spare would show a slash. t thought it might
 20 be A Q There were three boxes? It took longer than I
 21 expect A Yes. But I thought it would be impossible to go
 22 back Q What was the significance of the three boxes?
 23 to ta A From memory, the scoring said that if you get a
 24 strike, you scored ten points plus -- you score on the next
 25 ball, or the next two balls. I am not a 100 percent up-to-

1 date on the scoring procedure. I don't bowl myself.

2 Q I still don't understand why you have three
3 blocks. his finger on the play button, and the spot of light
4 was on. A If you score ten points plus the next two balls,
5 we had to show that you have had a strike previously. If
6 you subsequently followed that by a second strike, we would
7 have to show you had two strikes because we can not complete
8 that scoring until you have bowled the two balls after the
9 first one. at a time?

10 Q Did these blocks either have X's or slashes in
11 them? It was on at a time.

12 A That's my recollection. me?

13 Q I am sorry. Go ahead. a movement of the ball
14 appear less MR. RIFKIN: Mr. Katz, that's the point. For
15 the last several minutes, you have been clipping his answers
16 with the next question. I am not sure he has completed his
17 answers. It and then turned it off and turned on the next.

18 Q MR. KATZ: I apologize. I don't want to limit
19 your response to the questions. I just thought it might
20 be easier to clarify some points. It took longer than I
21 expected it to. But I thought it would be impossible to go
22 back and try to find this again later without continuing
23 to take copious notes as you were talking. Its behind the pins

24 in a pattern THE WITNESS: We got to the stage -- the point

25 where Q a ball (BY MR. KATZ) Of the player -- we had the led

1 player-up button; is that right?

2 A We got to the stage where the first player was
3 holding his finger on the play button, and the spot of light
4 was moving left and right at the base of the alley. At a
5 judicious time, he would release his finger from the button
6 allowing the ball to travel up the alley, again represented
7 by a spot of light.

8 Q So when the light went up the alley, one light
9 would be on at a time?

10 A That's not correct. It would appear as though
11 one light was on at a time.

12 Q What was actually the case?

13 A In actual fact, to make a movement of the ball
14 appear less jerky, the next light ahead was turned on before
15 the previous light was turned off to give a smoother response.
16 It looked too much like a jerky cartoon if you just turned
17 on one light and then turned it off and turned on the next.

18 Q Okay.

19 A The ball travelled up the alley along the track
20 which was a function of the timing of the release of your
21 finger on the button and entered the pins at the end of the
22 alley as a result of that timing. The pins, then, would
23 appear to fall down by turning off the lights behind the pins
24 in a pattern which was not only a function of the point
25 where the ball entered the frame, but also further divided



1 up into multiple choice results as a function of the ball
2 precise timing of the release of that button. This was done
3 so that you were not always sure what the result of the pins
4 would be since there are, in fact, only sixteen points to
5 enter the frame, and with just sixteen results, the game
6 would get very boring. function of the program, the sixteen

7 Q What do you mean by that, "sixteen points
8 entering the frame"? ts or time segments between ball

9 A There were only sixteen lights at the end of
10 the alley around the pins that could be representing the
11 point of entry of the ball into the pin frame. Theoretically,
12 then, there are only sixteen pins apparent visually to bowl
13 the ball. Sixteen results would have been boring,
14 especially since some of the balls enter about the same point
15 on the frame.

16 Q So how did you vary that, or was that varied so
17 there would actually be more than sixteen different results?

18 A Yes. The sixteen lights at the end of the
19 alley corresponded to the sixteen lights at the base of the
20 alley, one of which was the one you released the switch on.
21 In between each lamp at the base of the alley and
22 correspondingly the end of the alley were unseen time
23 divisions that the player had virtually no control over.
24 But for example, the two lamps around the strike position on
25 the frame would be divided up into sixteen, for example,

1 subsections and the exact timing of the release of the ball
2 selected which of these subsections you had entered. And
3 that subsection resulted in one -- for example, sixteen
4 possible pin fall downs as a function of entering the frame
5 at that one point.

6 Q That was a function of the program, the sixteen --

7 A The sixteen --

8 Q -- segments or time segments between ball
9 positions or the light positions?

10 A The function of dividing it into sixteen was
11 built into the program. The actual selection of which one
12 of the sixteen segments was a timing function at the time of
13 play.

14 Q At the time that the operator released the
15 button?

16 A Correct.

17 Q Now, continue.

18 A Okay, as a result of which pins fell down, you
19 would either get a strike if they all fell down or you would
20 get to bowl the second ball in the frame if less than the
21 total pins fell down. The second ball proceeded in the same
22 manner except that when it entered the frame, the remaining
23 pins, which may or may not have been knocked down, were a
24 function of which pins had been knocked down on the first
25 ball. Obviously, the remaining pins was a function of the

1 first ball. When the second ball had been complete, if it
2 was necessary, the scoring was updated to reflect regular
3 bowling scoring of that frame.

4 The next player then would bowl the first
5 frame just like what happens in a regular bowling game, and
6 the process would continue in sequence through the tenth
7 frame, at which time the game over.

8 Q Was it required that the players play in the
9 particular sequence?

10 A The player-up lights would light in sequence.
11 If the players did not play in the corresponding sequence,
12 then the scores would reflect a mixture of players. Although
13 the players were not forced to play in sequence, that was
14 the intention of the game.

15 Q Was it possible to change that mode of operation
16 of the game by the operation of any switches?

17 A No.

18 Q Were there switches in the game that were
19 intended for use by not the player but the operator of the
20 establishment?

21 A Yes.

22 Q What were those switches?

23 A I would have to refer to the Alley, but there
24 were switches which controlled the various parameters in the
25 game, for example, how many credits you got per coin in the

1 coin entry, the speed, and the number of times that the
2 spot moved along the baseline, whether or not various
3 features were to be operational in the game, such as, the
4 match feature, whether any player button could be pushed when
5 a particular player was up or whether that specific button
6 had to be pushed.

7 Q What do you mean by that? game, a random number?

8 A By that I mean we have a switch so that if one
9 player button was not functional on the transmitter, the
10 game would not be put out of order. You throw the switch and
11 use any other button on the transmitter unit so that the
12 game could continue in operation until such time as a service-
13 man could correct it.

14 Q What if two buttons went out? Would it still be
15 operational?

16 A Once you threw that switch, you could use any
17 player button.

18 Q Was there still an order to the game?

19 A There was an order to the scoring, the sequence
20 in which the players should play. But they were not forced
21 to use their own respective buttons on the transmitter.

22 Q They could use another button?

23 A Yes.

24 Q So all four players could play with one button?

25 A If it was passed between them, yes.

1 Q Was that referred to as a parallel play, if you
2 remember?

3 A That sounds like the description used.

4 Q What do you mean by "match feature"? You
5 mentioned that.

6 A Pinballs then as now have what is called a
7 match feature where on completion of a game, a random number
8 is displayed. If this random digit matches the last two
9 digits, depending on the construction of the scores of one
10 of the players, free credits of some kind are awarded on the
11 game.

12 Q Were you employed at Bally when the Bally Alley
13 was put into production?

14 A Yes.

15 Q Were you there when they were being sold?

16 A I think the majority of the games were sold after
17 I left Bally.

18 Q Did you have occasion to see and play one of the
19 production units?

20 A Yes. I installed production units at trial
21 locations in the Chicago area and played them in the field
22 and watched the members of the public playing them.

23 Q Do you know whether this was considered at Bally
24 to be a successful game?

25 A MR. RIFKIN: I am sorry. What was your question?

1 Does he consider it, or does Bally consider it?

2 A MR. KATZ: Neither. Would you repeat the
3 question? For coin-operated games?

4 A Yes. (The pending question was read.)

5 Q MR. MEYERS: The question is not clear as to
6 what you mean by "successful game." the present time.

7 Q THE WITNESS: I left Bally before the majority
8 of sales on the game, and I don't know what Bally's opinion
9 of it was. (indicating).

10 Q (BY MR. KATZ) You go on to state in paragraph 6,
11 "The description of the Bally Alley game in the service
12 manual, Exhibit A, is accurate but not complete." Other than
13 your testimony concerning that there was no identification
14 of the manufacturer of the microprocessor parts, in what
15 other respects, if any, was it incomplete? the intention that
16 these A said: There was very little information, if any, with
17 regard to the internal structure and operation of the control
18 board, and only an experienced microprocessor engineer or
19 technician would have been capable of trouble shooting.

20 Q How do you know that? ever put out any other
21 version A of: I've been in the industry many years, and that's
22 my opinion. ng to here, the copy, BD 193?

23 Q Have you ever worked with servicemen with respect
24 to the Bally Alley game? paragraph 8, it states: "The Bally
25 Alley A me (No. a programmed INTEL microprocessor system

1 Q Have you ever been a serviceman?

2 A Yes.

3 Q For coin-operated games?

4 A Yes.

5 Q When was that?

6 A Since probably 1966 to the present time.

7 Q What do you mean by that?

8 A I mean I'm currently on call for service at
9 this moment (indicating).

10 Q On your games?

11 A Yes.

12 Q Did you mean anything specifically by the
13 statement that I just read that "it's accurate but is not
14 complete"?

15 A Yes, I meant that it was never the intention that
16 these boards would be serviced by the type of distributor
17 in the field that would use these games. It was not at that
18 time thought that these personnel would have equipment nor
19 the ability to trouble shoot this board.

20 Q Do you know if Bally ever put out any other
21 version of service manual other than the one that you've
22 been referring to here, the copy, BD 103?

23 A That's the only one I know of.

24 Q Referring to paragraph 8, it states: "The Bally
25 Alley game uses a programmed INTEL microprocessor system

1 using a 4004 CPU and known as an MCS-4 system." Is this
2 information that you supplied to Mr. Meyers for the
3 preparation of this affidavit, or did he supply that
4 information to you? sure of them.

5 A No, I supplied it to him. He may have been
6 aware of it, but I told him. d at the time you designed the

7 Bally Q What is your understanding of the MCS-4 system?

8 A It refers to a group of compatible components
9 marketed initially by INTEL which comprise a microprocessor
10 set of building blocks for constructions, various types of
11 microprocessors. wa avd.

12 Q This compatible set of components are intended
13 to be used together; is that right? a and that, what

14 you m A by That's the intention.

15 you r Q They include a building block called the ROM,
16 R-O-M? ja f, avd.

17 A Yes.

18 Q And a building block called a RAM, R-A-M?

19 A Yes.

20 Q You go on to state: "At the time I designed the
21 Bally Alley game, MCS-4 systems were described in INTEL's
22 MCS-4 Microcomputer Set Manuals." Which manuals were you
23 referring to?

24 A INTEL published manuals on the use of their four
25 bit microprocessor system. wa avd.

1 Q Did you have such manuals at the time?

2 A Yes, I did.

3 Q Do you still have those manuals?

4 A I have some of them.

5 Q Do you have the one or more manuals that you
6 referred to here that you had at the time you designed the
7 Bally Alley game?

8 A I don't have all the original manuals. Some of
9 those original manuals were badly written and currently are
10 out of date. I think some of the earlier versions have been
11 destroyed or thrown away.

12 Q You go on to say, "such as the User's Manual,
13 dated March 1974 (Rev. 5)." When you said that, what did
14 you mean by "such as the User's Manual dated March" -- were
15 you referring to having had that particular manual, that
16 revision 5 manual?

17 A I don't know if I had that particular revision
18 or not.

19 Q You say some of those early manuals were poorly
20 written. What did you mean by that?

21 A They had errors in them. They lacked a lot of
22 information that was necessary to design systems. Subsequent
23 manuals came out with more complete information and corrected
24 the errors in the earlier editions.

25 Q So you don't know exactly what manuals you were

1 referring to? It may be similar to this manual; it may not
2 be? I mean, it would have --

3 A All the manuals at that time were very similar.
4 In general, each revision was a rewrite of the earlier one.

5 Q But they had additional material in subsequent
6 revisions?

7 A Additional material and deleted material and
8 corrected material.

9 Q Did they all describe the same INTEL MCS-4
10 microcomputer system?

11 A Yes.

12 Q In other words, the components, the building
13 blocks, were themselves the same?

14 A Later editions included specifications on new
15 additions to the building block set. But in general, later
16 editions included repeat specifications on the earlier
17 components.

18 Q In 1974, did you know whether there was anyone
19 other than INTEL who was making microcomputer sets?

20 A I can't be specific on the date, but I'm fairly
21 sure I did.

22 Q Did you ever consider using anyone else's
23 microcomputer set in the design of the Bally Alley?

24 A If my memory serves me correctly, we had a sample
25 chip from the National Company which we put on trial in one

1 of our prototype games. It appeared to work satisfactorily.

2 Q That was the one you indicated before that you
3 thought was a copy of the INTEL? under the coin acceptor

4 to do it. Yes. passage of the coin deposit.

5 Q Do you recall whether there were any others?

6 A Not that I know of. on the micro switch

7 physi Q Does the term "pin out" have any meaning to you
8 now in connection with a chip? chas were there?

9 A Yes. memory, some had two coin switches in it

10 becau Q of What does it mean? Some of the early models only

11 had o. A. I It refers to a table which specifies the function
12 of each pin on a chip. w that there were different models

13 havin Q thes Did the National have the same pin out as the
14 INTEL part? act, produced?

15 A Yes. 's my recollection. There was provision for

16 a del Q. r bl In paragraph 9 you state: ve "The Bally Alley game

17 has a number of input switches, including coin responsive
18 switches, player operated switches, and a number of operator
19 preset switches." a I'm omitting your references to service
20 manual pages. we built a prototype.

21 A Yes. you recall when that was?

22 Q What were the coin responsive switches that you
23 referred to?

24 A They were switches which operated when coins
25 were dropped in the coin box.

1 Q What were they physically?

2 A There were various models, but, in general, it
3 refers to the micro switch placed under the coin acceptor
4 to detect the passage of the coin deposit.

5 Q What happens when a coin goes down the shoot?

6 A It operates the wire on the micro switch
7 physically causes the switch to change state.

8 Q How many such switches were there?

9 A From memory, some had two coin switches in it
10 because of dual coin shoots. Some of the early models only
11 had one. I don't recollect how many of either were produced.

12 Q Do you know that there were different models
13 having these different number of coin shoots of the Bally
14 Alley, in fact, produced?

15 A That's my recollection. There was provision for
16 a dollar bill acceptor which would give multiple credits for
17 the insertion of a dollar bill. But it's my memory that
18 no models were ever sold with the dollar bill acceptor in it.

19 Q Were any built?

20 A We built a prototype.

21 Q Do you recall when that was?

22 A Towards the end of the design period of the
23 Bally Alley.

24 Q Did that ever work successfully?

25 A Yes.

Q Who worked with you on that?

A Roman Tojza.

Q Now, you referred to the "player operated

switches." What switches are you referring to there?

A That refers to the five switches on the remote

transmitter, one of which was the player-up button, the

other four of which were the actual player buttons themselves.

Q What was the remote transmitter? I don't believe

you have mentioned that before.

A There was a radio connection on some models of

the game between the player and the game. The game itself

was hung on a wall. It was intended to be played from a

cocktail table remote from that wall somewhere in a bar or

similar location.

Q How many player operated switches were there?

A Four, not counting the common player-up switch which was available to all players at the start of the game.

Q Were all these mounted on one box?

A Yes.

Q And the operator preset switches, where were they located?

A They were located on the main control board inside the display box.

Q You state that: "These switches, or the circuits connected thereto, are scanned sequentially," and then you

1 say, "or multiplexed to determine their status." When you
2 talked about the switches or the circuits connected to the
3 switches, what are you meaning? processor was inputting
4 information. It's very difficult electronically to scan a
5 group of switches without connecting the switches to the
6 electronics so that in actual fact the computer only scans
7 the wires which are remotely connected to the switches, not
8 the switches themselves, depending on your definition of
9 where the computer starts and finishes. In our earlier
10 context where we considered the whole board to be the
11 computer, the scanning was actually taking place internally
12 in the computer.

13 Q This, then, would vary depending schematically
14 on how you define what the computer is? one in the same
15 sequence. A Yes. If the switch was part of the computer,
16 then you could leave out the -- where was it? -- you could
17 leave out the words "circuits connected thereto" because
18 the switches, in fact, would be part of the computer. But
19 if you had switches as an input mechanism to the central
20 processor, then, in order to scan, they have to be connected
21 to the central processor. What was the question again, please?

22 Q Now, what did you mean where it says, "The
23 switches, or the circuits connected thereto, are scanned
24 sequentially"? What did you intend to mean by the term
25 "scanned sequentially" as to what was doing it? In other

1 words, what is scanning sequentially?

2 A The central processor in association with the
3 other chips that make up the microprocessor was inputting
4 information from the switches sequentially because there
5 were more switches on the board than there were inputs to
6 the computer, and it had to look at them a group at a time.

7 Q What do you mean by the term "sequentially"?

8 A After you have done one group, you do the next
9 group. And when you finish that one, you do the next group.

10 Q You mean sequentially as opposed to all at the
11 same time? * obtained.

12 A Exactly. that done?

13 Q Does it mean any more than that? los of

14 A It means they were always done in the same
15 sequence.

16 Q Did that depend at all on what else was happening,
17 what inputs were coming into the machine?

18 A I don't think so. when

19 Q Let's consider the coin switch or switches.
20 Do you know how those switches were sensed?

21 MR. HARDING: What was the question again, please.

22 (The pending question was read.)

23 THE WITNESS: Those switches were connected
24 through relays to some debouncing in the multiplexing
25 structure and scanned in the same way as the other switches

1 we have been talking about. a microswitch, a coin

2 Q What do you mean by "debouncing"?

3 A I mean that in this case we are talking about
4 switches which were physically operating prior to, during,
5 and after the game as opposed to the switches we were talking
6 about before which are operator preset switches and not
7 normally changing state. When a switch changes state, there
8 is a possibility of false information due to contact bounce
9 so that it was necessary to remove the effects of that
10 bounce in the case of the coin switches so that false readings
11 would not be obtained.

12 Q How was that done? under which is pushing on a

13 A That was done by sensing both sides of the
14 switch and ignoring bounces on one contact until the other
15 contact had been touched. it will stay at rest in one of
16 two positions. And the particular switches that you were using
17 had contacts, physical contacts on opposite sides of a leaf
18 spring? Is that essentially what they were? it is then

19 A With the modification that in actual fact we
20 are talking about looking at the contacts on the remote
21 relay which was a slave to the physical coin switch in the
22 coin box.

23 Q Would you define or describe, if you can,
24 specifically the kind of switch that was used in the coin
25 box. A Yes.

1 A The coin box had a microswitch, a coin
2 microswitch which is common in the industry.

3 Q How is that constructed?

4 A That was a standard product made by Microswitch,
5 I think. I don't think we need to go into internal
6 construction.

7 Q Have you ever seen the internal construction of
8 that switch?

9 A Yes.

10 Q Could you describe briefly how that is
11 constructed.

12 A Yes. You have a plunger which is pushing on a
13 spring which has a mechanical construction giving it
14 hysteresis. The hysteresis means that the spring is
15 bi-stable; in other words, it will stay at rest in one of
16 two positions. In each of these positions, it's resting
17 on an electrical contact such that when you push this
18 bi-stable spring over the dead center point, it is then
19 pulled towards the other contact and will remain there
20 stably until it's pushed back the other direction.

21 Q Does it have toggle on its own, if you know what
22 I mean?

23 A Not if the switch is working correctly.

24 Q Because of the hysteresis?

25 A Yes.

1 Q -- Is there a problem with bounce on that switch?

2 A There is a bounce on most switches.

3 Q How is that created on this particular switch?

4 A On this particular switch, as the center --
5 contact is travelling from one element to the other, it
6 ~~changes~~ inertia. When it lands on that contact, that inertia
7 ^{gains} has to be dissipated, and before it can be dissipated, it
8 physically bounces just like a rubber ball would. And that
9 bounce can occur many times before it finally comes to rest
10 on that contact.

11 Q And the output from that switch, then, was
12 provided to what?

13 A Are we talking -- we are talking about the coin
14 switch?

15 Q I am talking about that specific switch that you
16 just described the construction on.

17 A That switch was connected via cable to a slave
18 relay in the display box itself, and that slave relay has
19 contacts that change from one point to another similar to
20 the coin switch which eventually connects to the electronics.

21 Q For every bounce of the coin switch, the
22 microswitch, will there be an energization of that relay?

23 A Although there would be repeated energization
24 of the relay, the relay would not respond to them. The
25 relay would normally only respond, one, when the microswitch

1 operated --

2 Q Isn't that because there is a certain effect of
3 inertia in the relay that would dampen --

4 A This is inertia in the relays. There is
5 inductance in the coil. Both of those affect the response
6 of the relay.

7 Q So generally there wouldn't be a bounce of the
8 relay contact in response to the microswitch actuation
9 by a coin; is that right?

10 A The response -- sorry, the bounce in the relay
11 contact would be a mechanical function of the relay
12 virtually unrelated to the bounce on the microswitch.

13 Q What was the construction of the relay contact
14 that you are referring to?

15 A It was similar to the microswitch we described
16 earlier except there was no mechanical hysteresis built into
17 it. It was, in fact, spring loaded to be biased in one
18 direction and stable only in one direction and actuated into
19 ~~inability~~ by energization of the coil on the relay.

(?) (f)

20 Q Did it have a double-throw contact?

21 A Yes.

22 Q How did you effectuate the debounce action from
23 that relay?

24 A The way I described earlier. We monitored both
25 sides of the double-throw switch, and we ignored multiple

1 contacts on one side of the switch until the contact had
2 transversed and touched the other side of the switch.

3 Q How did you do that?

4 A It's normally done with a ~~an~~ ^{an RS} ~~IRS~~ flip-flop such
5 that touching one side of the switch would set the flip-flop
6 in one condition. Further signals to that side of the
7 flip-flop would only help to reinforce the setting of the
8 flip-flop and it would not change its state until such time
9 as the switch contacted the other contact and signalled
10 the other side of the flip-flop causing it to change states.

11 Q If you had repeated bounce and so you received
12 signals from both double-throw contacts, the flip-flop would
13 then respond by flipping up and back; isn't that right?

14 A Under normal circumstances it was not possible
15 for the contact to bounce completely from one side to the
16 other. Under normal circumstances if the contact -- it
17 would bounce away from the contact it was trying to land on,
18 but it would not bounce sufficiently hard to touch the other
19 contact.

20 Q How did you ever get a response from the other
21 contact?

22 A You got a response from the first contact ^{when} ~~and~~ ^{cf.}
23 energized in response to the microswitch being operated.
24 You got a response on the original side after the coil
25 energization was released as ~~against~~ ^{(3) (4)} a function of the coil

1 being turned off when the microswitch released after the
2 coil went over it.

Coin cf.

3 Q That is what you took, then, as your indication
4 that the coin had been dropped into the coin slot; is that
5 right?

6 A I think this particular circuit had a latching
7 arrangement so that the operator energization of the relay
8 was maintained until such time as the computer acknowledged
9 having detected the closure of that contact. I would have
10 to refer to the schematic.

11 Q You can refer to the schematic.

12 A No. That's not correct. The relay did not
13 latch in this event. After the debouncing process was formed
14 by XRS flip-flops, numbered 49 on the schematic, the result
15 of that data change was actually stored in chip number 46.

16 Q What was "chip number 46"?

17 A That was a pair of flip-flops.

18 Q The information for how many coins could be
19 stored in there at one time?

20 A One. One from each coin switch. So that makes
21 a total of two because there were two flip-flops in the
22 package.

23 Q So if you put one coin in, it would register
24 that coin; is that right?

25 A What would register the coin?

1 Q The flip-flop?

2 A Yes. it always occur at a regular interval?

3 Q If you then put another coin in, it would though
4 register that coin?

5 A It would not register that coin until the
6 computer cleared the first coin. However, the computer
7 would clear that flip-flop of the first coin faster than
8 you could insert further coins at the coin entry.

9 Q When did the computer read or sense that
10 flip-flop?

11 A The computer looked to see if that flip-flop had
12 been operated many, many times a second sufficiently fast
13 that you could not get additional coins in without it having
14 been cleared.

15 Q So the computer was reading the flip-flop; is
16 that right?

17 A Yes.

18 Q Its receipt of information from the coin switch
19 was indirect; is that right?

20 A Yes.

21 Q Did the sensing of the flip-flop occur throughout
22 an entire game?

23 A Yes.

24 Q It would begin upon energization of the game;
25 is that right?

1 A Yes. not sure I understand your question.

2 Q Did it always occur at a regular interval?

3 A That question is difficult to answer. Although
 4 it was sensed cyclicly and periodically, the length of the
 5 period or the length of the cycle was, to some extent, a
 6 function of how much processing the computer had to do maxe
 7 between cycles. What I am saying is at different stages of
 8 the game more or less overhead was required of the computer
 9 for maintaining the operation of the game. When it had
 10 finished a cyclic update of that information of the game,
 11 it then went through this multiplexing and sync operation
 12 to again observe the condition of that and all the other
 13 input. A You asked whether the person would know at what
 14 point Q Just directing your attention to this particular
 15 input, since the time period I think you are testifying to --
 16 you are saying that the period would be changing and that
 17 period would be a function of the amount of time the
 18 computer required to do other things? th. And when I say a
 19 "person" A That's correct. to a player. I am talking about
 20 the person Q Is that right? occurring. So that it wouldn't
 21 be possible A Yes. determine -- it wouldn't be defined -- it
 22 would Q be So that if you were to pick an instant in time
 23 not knowing anything else, it wouldn't be possible to other
 24 predict at that particular time where you were in the period
 25 of the sensing operation; isn't that right? correct because

1 A I am not sure I understand your question.

2 MR. KATZ: Could you read the question back?

3 MR. HARDING: I don't understand it, and I
4 object to it as being vague and indefinite.

5 (The pending question was read.)

6 THE WITNESS: The question does not really make
7 sense because the whole process is happening so fast that
8 a human's mental processes could not keep up with it, and
9 knowing at what point in the computer cycle you were dropping
10 a coin in the switch has no meaning.

11 (BY MR. KATZ) It would have meaning with
12 respect to the programming, wouldn't it?

13 A You asked whether the person would know at what
14 point in the cycle the switch was closing, if I understood
15 your question.

16 Q I am sorry. I meant -- I was taking an
17 arbitrary point on a time, let's say, as we were talking
18 about the period and its varying length. And when I say a
19 "person" I am not referring to a player. I am talking about
20 the point in time that it's occurring. So that it wouldn't
21 be possible to determine -- it wouldn't be defined -- it
22 wouldn't be possible to define what the period is with
23 respect to that sensing because you wouldn't know the other
24 factors involved that would require computer time?

25 A That's -- that's only partially correct because

1 the computer program was investigated to make sure that the
2 absolute longest process that it ever had to do was still
3 only a very small fraction of the time it would take to
4 drop a coin in the machine. So that even by some chance
5 if the computer were executing its longest process, that
6 input would still get scanned many, many times in the process
7 of dropping a coin in. And so the time in a particular
8 cycle of the computer at which that data arrived is the
9 immaterial. *is doing or where you were in the program sequence?*

10 Q It may be immaterial for that purpose in your
11 view, but I am directing my question to the ability to
12 predict the period between any particular sensing points.
13 *precise A y;* I could tell you with calculations the exact
14 period between any two sensing points. The player, if he
15 dropped in a coin at random, would be unaware of what the
16 period was at any one time. *a two limits.*

17 Q But you said that the period would vary *s, were*
18 depending upon how much time was being used by the computer
19 for other functions. So I don't understand how you could
20 say that you could calculate it if you didn't know what else
21 the computer was doing. *ce would be static since they would*
22 *not be* A *ce* I can give you with calculations the time it
23 takes to do every job -- every job the computer had to do.
24 It is true that at the moment you drop the coin in it could
25 be doing any one of the processes, and at any one particular

1 time you would not know which one it was.

2 Q Wouldn't that time be dependent on when you
3 dropped in a coin, at the beginning of a game, or whether
4 you dropped in a coin in the middle of a game, or at the
5 end of a game?

6 A It could be.

7 Q It is possible to define, in your view, the
8 periodicity of the scanning without knowing what else the
9 computer was doing or where you were in the program sequence?

10 A You could state minimum and maximum limits on
11 that period.

12 Q But you wouldn't know, you couldn't determine
13 precisely; is that correct?

14 A Without knowing what section of the program was
15 being executed at that particular time you would not know
16 where you were between those two limits.

17 Q Referring to the operator preset switches, were
18 there any problems with bounce on those switches?

19 A Those switches would bounce, but since the
20 switch remained static during the operation of the game,
21 the information from them would be static since they would
22 not bounce if they were not being operated.

23 Q What was intended in the game was that those
24 switches would be set by the operator of the establishment
25 rather than by the players, and that once those were set,

1 they would essentially be left alone during the play of
2 the game; isn't that right? wouldn't be intended that he
3 change A: d. That's correct. of the game?

4 Q Then was it necessary to scan or sense those
5 switches more than one time during the play of the game?
6 to ch A: d. It wasn't necessary. adding the information from
7 the c Q: Was it, in fact, sensed or scanned more than
8 once during the play of a game?

9 A Yes. only difference would be the capability of
10 changing Q: Why was that done, if you know? before a game
11 would A: d. If you have a multiplexing structure and you
12 have a cyclic routine in the computer to read or transmit
13 data over that structure, rather than create special
14 routines in the computer to look at the particular switches,
15 it's simpler to call up a common routine which scans
16 everything and loads all the data into the computer and then
17 just access the particular data you are interested in. fixed
18 in it Q: d. Isn't it true that these operator preset switches
19 then, which were maintaining fixed data were really out to
20 performing the function of a memory, such as a ROM, except
21 that they could be changed by the operator? e than just data.
22 It co A: d. Not really because you can't -- an operator
23 couldn't change the ROM. s They were feeding in data which
24 was intended to be fixed throughout a game. However, if the
25 operator had wanted to, he could have changed them at any

1 time, and the computer would have responded accordingly.

2 Q Right. But it wouldn't be intended that he
3 change it during the course of the game?

4 A No.

5 Q Would there be any difference with respect
6 to the computer whether it was reading the information from
7 the operator preset switches as compared to reading the
8 information in a ROM?

9 A The only difference would be the capability of
10 changing the switches that during a game or before a game
11 would be missing.

12 Q But from the point of view, if we can use the
13 term, of a computer it wouldn't know; right?

14 A The method of access of data would be different,
15 but the result would be the same.

16 Q Do you know whether it would be possible, for
17 example, to take the ROM that had a particular program fixed
18 in it and replace it with specific switches which would
19 contain the same programmed information? With respect to
20 the computer, would there be any difference?

21 A Yes, because a ROM contains more than just data.
22 It contains means for accessing that data. So you can not
23 replace a ROM with just switches without providing
24 multiplexing means for accessing those switches.

25 Q What do you mean by that?

A You said could I replace a ROM with a set of switches.

Q Functionally.

A And the answer is no. The answer is no because typically a ROM of this kind contained two thousand pieces of information which would mean two thousand switches.

Typically these ROM's were accessed by the computer through four wires. Four wires will not connect to two thousand switches without a lot of multiplexing logic between them.

Q Isn't it the same thing too with respect with switches and ROM's, isn't that right, as far as if you were going to multiplex that information, you would have to do the same thing, would you not?

MR. HARDING: I will object to the question as being vague and indefinite.

MR. MEYERS: I don't understand the question, and I will object to it on that basis.

MR. KATZ: Could I have the last answer back.

(The pending answer was read.)

(Brief recess taken.)

Q (BY MR. KATZ) Let me approach this in a different way. If you hadn't desired to make the functions of the preset operator switches changeable, couldn't you have achieved the same thing with a ROM and multiplexed the ROM?

MR. MEYERS: Counsel, I object to the question. You are asking him to speculate today on what he might have done some time ago if he wanted to do something that he didn't want to do at that time. You have all kinds of hypothetical questions thrown in there. I just don't think it's proper.

MR. KATZ: I withdraw the question.

Well, I don't think I will withdraw the question. I will leave the question in and note your objection. I will let the witness answer the question if he can -- if he will answer the question.

MR. MEYERS: What is the question? The problem is you have got one hypothetical after another. Are you asking him what he would do today, his opinion today as to what he might have done if he wanted to do that, and he didn't necessarily want to do it then? What's -- I think --

THE WITNESS: I can answer the question.

MR. HARDING: I also believe the question is clearly outside the scope of the issues. It's not even, in fact, a question.

MR. MEYERS: Therefore, we will enter our objection.

THE WITNESS: I can answer it if you want. Bally pinball machines have a multitude of operator preset switches and they chose not to put them in their ROM for the reason

that it's not possible to do so. over four wires only was to
 time Q (BY MR. KATZ) On what basis? I mean, there is
 a sys A Because if you put them in a ROM, the operator
 can't operate it. He would have to change a ROM program
 every time he wanted to change a game parameter. as and
 dest Q Oh, yes. But my assumption was that you didn't
 want to change the game function. computer.

A That would be an unreasonable assumption.
 Otherwise, people would build games in a different manner.

Q In what different manner? those terms, but that's
 not a A I don't know. It hasn't been done.

Q Is the communication between the CPU chip and the
 RAM and ROM chips in the Bally Alley accomplished by a
 multiplexing technique? or heard the term "multiplexing" used
 in di A Yes. texts?

Q Do you know what that technique is?

A Yes. different contexts?

Q Would you describe that. multiplexings, such as,

freq A The bus structure of the MCS-4 microprocessor
 involved four wires: Information on the program counter
 status, data fetched from ROM memory, input-output data,
 RAM input-output all travelled over these four wires. Since
 the address required twelve wires, the data from the ROM
 required eight wires. Input-output data required four wires.
 The data from the RAM required four wires. The only way

you could process all this data over four wires only was to time division multiplex the data. By that I mean, there is a system clock which says the data on the wire at any particular time refers to a particular source and destination of the data. By this means a multitude of sources and destinations of information were channeled through the four wires which formed the bus of the computer. Was this referred to as time division multiplexing?

A I don't think INTEL used those terms, but that's not an unreasonable description. What terms did INTEL use? Do you know? I think they just used the word "multiplex."

Q Have you ever heard the term "multiplexing" used in different contexts?

A Yes.

Q What different contexts?

A There are many types of multiplexings, such as, frequency to main multiplexing, different types of modulation multiplexing. FM multiplexing is an example where they separate the two channels and put them on one transmitter. Steve

Q My understanding of the word "multiplexing" means any time you have multiple pieces of information being carried by a common logic channel, Beta wire, or conductor. Data (?)

That's a form of multiplexing.

Q Have you ever seen in your work with digital systems the use of the term "multiplexing" or "multiplex" for decoding or encoding?

A Decoding and encoding are integral functions of multiplexing. The encoding process refers to the combining of multiple sources of information onto one channel of information. The demultiple -- what was your other term?

Q Decoding.

A The decoding is a process of separating those signals out from that one channel into the original pieces of information.

Q Have you ever heard of components referred to as "multiplexors" or "demultiplexors"?

A Yes.

Q What would be your definition of "multiplexors"?

A A multiplexor would be a device with individual inputs on which information would be fed into the device and a fewer number, typically, of outputs onto which this multiple output information has been combined in some manner or other.

Q The type of multiplexing which you referred to as "time division multiplexing" within the microcomputer set, is that, in your view, a particular type of multiplexing in

a general sense?

A Yes.

Q Do microcomputers or microprocessors always in your experience, use a multiplexing form of communication or a time division multiplexing form of communication?

A Most do use multiplexing. Not all of them use time division multiplexing.

Q What do you mean by that?

A Are you asking for the distinction between time division multiplexing and other types of multiplexing?

Q In relationship to the communication between the chips of a microcomputer.

A Time division multiplexing refers to a technique where the individual segments of data on the bus structure are identified by what point in time you are looking at the bus. In general, a system like that will have a sync pulse and a clock pulse. By means of counting clock pulses from the commencement, which is signified by the sync pulse, you know what data is on the line at any one time. But it's not specifically identified.

Q Excuse me. I didn't hear that last --

MR. RIFKIN: Mr. Katz, I must insist you let him finish his answer.

MR. KATZ: I just didn't hear that last word --

THE WITNESS: I'm not sure if I remember. The

other type of multiplexing is where the data that's occurring on the bus is typically identified by some other hardware signals which, when active, indicate what data is occurring at the bus at this particular time.

MR. KATZ: Would you read that answer back.

(The pending answer was read.)

Q (BY MR. KATZ) It was "not specifically identified," but something --

THE WITNESS: I guess that's period. Not specifically identified. By that I mean there is no electrical signal present on any bus or that bus which determines exactly what data was present without knowing the history of when the sync pulse occurred.

MR. HARDING: Mr. Katz, I want to lodge an objection. Just for the sake of the record, this witness is a fact witness pertaining to the Bally Alley. To the extent that you are using this witness as a means to educate yourself or whatever, to learn this man's expert knowledge, I think it's outside the scope of the subpoena, and it could go on for a week. The man is obviously very learned, and his expert knowledge is obviously very expansive.

MR. KATZ: I think you are entirely mischaracterizing what's going on, Mr. Harding, because what we are doing here is trying to get at the definitions and the meanings of the terms that this man has used in his

affidavit. I think it's entirely proper to do this, and I think that the subject is complicated, and I think we are dealing here with an affidavit basically written by counsel. I think that it's important to get at exactly what the meanings of the terms are. There are distinctions that the witness has drawn. There are distinctions that other parties in this case will draw. I think that it's important to lay a basis for this man's affidavit and what he meant by it since this affidavit has been filed in the Patent Office --

0 you wish to MR. HARDING: Unless I have been mistaken, I be
1 Mr. Katz, you have not been asking about what he meant by
2 the terms in this affidavit. The questions have not been
3 even close to the affidavit for a number of questions now.

4 MR. KATZ: We have talked about multiplexing and
5 multiplexed and microprocessors and these are all terms in
6 the affidavit -- we can go --

7 MR. HARDING: Then ask him his meaning of the
8 use of the terms. ATZ: Excuse me, Mr. Meyers. I would

9 appreciate MR. RIFKIN: "Multiplexor" "demultiplexing" --
10 those aren't in the affidavit. sitting me to finish my

11 statements. MR. KATZ: Well, we can perhaps shorten this if
12 you would agree, Mr. Rifkin, and you, Mr. Harding, never to
13 rely on this affidavit in the Patent Office or in any other
14 proceeding. Then we can skip this. But I don't think that
15 you will agree to that. Please do so.

MR. MEYERS: Counsel, all the objection is directed to is the fact that your examination is beginning to go astray, we believe, from the subject matter of the affidavit, and what general definitions of certain words may be is not necessarily related to the words as used in the -- all the variations of words doesn't necessarily relate to what's in the affidavit. I have allowed you plenty of leeway to pursue it. What we are saying now is that it's time to get back on the subject matter of the affidavit. If you wish to branch out as you go along, we will try and be reasonable. But you have not gotten back to the affidavit for some time, and it's now time to do so, and you may go forward, and we will see what happens. examination is going astray, we

MR. KATZ: I disagree with your characterization. When we find out the various definitions that some of these terms have, then we can go -- have the last question and answer read back. MR. MEYERS: I think you have pursued it --

MR. KATZ: Excuse me, Mr. Meyers. I would appreciate it if you'd give me the opportunity and the courtesy of finishing, of permitting me to finish my statements. If you intend to do this throughout the proceeding, and it's a wonder the reporter can get us to speaking simultaneously, but I would appreciate the courtesy of letting me finish my statement before you start talking.

MR. MEYERS: Please do so. process that we have

been discuss. MR. RIFKIN: Mr. Katz, I feel the need to come to Mr. Meyers' defense, not that he needs a defense. He has permitted you more latitude or provided you with more about courtesy than you have allowed to the other parties in this litigation. For you to raise your voice and approach him in that tone is reprehensible. I will get up and leave the deposition if you can't control your temper.

Q MR. KATZ: I will disagree with your representation of my raising my voice and my losing my temper. This is time consuming. If you would like to leave the room, Mr. Rifkin, you are welcome. not necessarily mean that it's

the multiple. MR. MEYERS: I think the best way to proceed at this juncture is that if we feel the examination is going astray, we will take appropriate action.

Q MR. KATZ: I think that's fine. were talking about the microprocessor. Could I have the last question and answer read back. between the chips, its communication is what we were talking about. (The pending question and answer were read.) A Yes.

Q THE WITNESS: If I can, I'd like to point out one thing to clarify what we have been talking about. We got on this subject on paragraph 9 where it first refers to the multiplexing function. And the multiplexing function there is referring to the scanning of the switches, not the process that goes on inside the microprocessor that we have

been discussing. It's really --."

Q (BY MR. KATZ) I am aware of that, and I am here treating the communication between the chips at the present time, and that's what my question was directed to, and your answer, as I understood, was directed to that. From your experience, I just want to point out that it was not the subject of the affidavit.

Q Okay. But it was the term "multiplexing" using the same language essentially as the affidavit uses.

A I want you to understand that the multiplexing I have been describing does not necessarily mean that it's the multiplexing referred to in this affidavit. Is that a typical system? It could be a different kind of multiplexing? Yes. Set?

Q When we, if I recall correctly, were talking about the microprocessor system and the multiplexing that occurred in between the chips, its communication is what we were talking about? Yes. Many microprocessor chip sets identify the data bus. Yes. You indicated that there was more than one type of multiplexing that could take place. You were aware of that from your experience? Yes, then what I said is correct. But the term "address" is not usually applied to these status lines. You were describing it. One you referred to as "time division multiplexing," and the other I believe you

just referred to as "multiplexing."

A It's -- I referred to it as "multiplexing" where the data on the bus is identified by similar hardware implementation.

Q Right. That is done, is it not, from your experience, by some hardware encoder devise or decoder devise or both?

A Not necessarily. The hardware that I had in mind could be, for example, an address bus so that the address on the bus at any one time identified the data on the data bus.

Q Is that typical, in your experience? Is that a typical system for intercommunication between the chips in the microcomputer set?

A No.

Q Are you aware that it's ever been done in a microcomputer set?

A It gets down to semantics on the definition of "address bus." Many microprocessor chip sets identify the data on the data bus by the condition of the signals on various status lines. If you regard those status lines as providing a numerical address, then what I said is correct. But the term "address" is not usually applied to these status lines.

Q What is usually applied?

time A me. They are usually referred to as status lines, such as, memory address, input-output lines.

Q With respect to the term multiplexed as used, for example, in paragraph 9 of the affidavit, how is that different? examination which I think is pertinent. If you intend A That refers to the type I just described where you have a data bus and an address bus, and the address bus specifies what data is on the data bus. or fifteen minutes. If you do MR. RIFKIN: Could I have the last two or three questions, please. I'd like to hear that testimony.

(The previous two questions and answers were read.) use this portion of the transcript without completing MR. KATZ: I see that the time is 5:00. We would like to adjourn sine die and subject to resumption by mutual convenience --- I also don't know that we need to MR. WELSH: I think they ought to hear this instead. instead. to make an agreement.

MR. KATZ: I would like, as I said, I would like to adjourn sine die subject to resumption by the mutual convenience of the parties.

MR. MEYERS: And the witness. ing to let me conduct my MR. KATZ: And the witness and subject to confirmation of all. If we can agree to that without further subpoena process -- witness on the affidavit that was put in the Pate MR. MEYERS: We can agree to try to agree on a

time frame, but I think it would be appropriate for a subpoena to be served. ~~use the deposition. So we will~~

~~adjourn now~~ MR. RIFKIN: And I do have a problem with that which I would like to put before you. ~~It is 5:00. I have~~ some cross-examination which I think is pertinent. ~~If you~~ intend to use the transcript of today's examination before you complete the deposition, then I would like to do my cross-examination now. ~~It would be ten or fifteen minutes.~~ If you do not intend to use it in the Patent Office before then, then I will have no problems. ~~ing. You indicated that~~ ~~you were going to~~ To restate, I will agree that if you are not going to use this portion of the transcript without to completing it -- ~~as that they were subject to attorney-client privilege.~~

MR. KATZ: I have no intention one way or another at this time. ~~S~~ So I can't -- I also don't know that we need to make any agreement. I don't know that we are obligated to make an agreement. ~~d probably expungement of~~

~~some of the~~ MR. RIFKIN: Are you prepared to give me the ~~you~~ ten or fifteen minutes? ~~releasing them within a week.~~

MR. KATZ: ~~No.~~ May we go off the record for a

~~minute before~~ MR. RIFKIN: So you are refusing to let me conduct my ten or fifteen minutes of examination now?

MR. KATZ: My examination is really a cross-examination of this witness on the affidavit that was put in the Patent Office. ~~So no -- well, if we can't reach~~ ~~ones.~~



agreement, then we can't reach agreement. We will do whatever we have to resume the deposition. So we will adjourn sine die --, subject to any corrections you might

show, that MR. MEYERS: Counsel, I indicated that we work at a date to be convenient for all. But once that date is established, I felt it would be appropriate to have a subpoena issued for that date. I have a copy of it.

MR. KATZ: We have no objection. it.

MR. WELSH: That's fine. be that I think I had

assumed that MR. KATZ: One other thing. You indicated that you were going to check during a break and advise us whether you would release the letters or whether you were going to continue to claim that they were subject to attorney-client privilege. attached to the materials the were reviewed

with, and I MR. MEYERS: I have one of the three letters which I am willing to release. The other letters I will release after further review and probably expungement of some of the material that is privileged. I will advise you as to the basis for not releasing them within a week.

August 11. MR. HARDING: May we go off the record for a minute before we go? At right.

(Discussion held off the record.) just

the first p MR. KATZ: Could Mr. Meyers take it and make a copy for us? MR. MEYERS: For the record, by agreement of

counsel. MR. THE WITNESS: It is identical to the other ones.

original of MR. MEYERS: Actually, counsel, I think it may be that we can make a copy of the first page, and I would be glad to stipulate, subject to any corrections you might show, that Exhibit BD 103 is identical to Exhibit A to the Foster affidavit.

MR. KATZ: Which we didn't get served.

MR. WELSH: We don't have a copy of it.

MR. KATZ: Our file doesn't have it.

MR. KATZ: I just want to note that I think I had assumed that when I saw that the Bally Alley manual was not attached. I assumed -- you just assumed that we had a copy of it, and it was the same.

MR. MEYERS: I will apologize. Exhibit A should have been attached to the materials that you were served with, and I would be glad to give you Exhibit A, and we will stipulate that this Exhibit is identical to Exhibit A to the affidavit and provide you with a copy.

MR. KATZ: Also could I get some copies of the first page of the patent because it shows this received date, August 13, '79.

MR. MEYERS: All right.

MR. KATZ: I would like to have a copy of just the first page because it has a received date.

MR. MEYERS: For the record, by agreement of counsel, Mr. Meyers will take possession of BD 103, and the

original of that exhibit will be returned to the witness, and copies of that exhibit will be retained by counsel.

MR. KATZ: Also, could I have a copy of this material, all these six sheets that relate to the Bally Alley notes? I don't know that we will ever use them, but I would like to have them as a record of what was produced.

THE WITNESS: I would have to have a written release from someone in authority at Bally Manufacturing.

MR. KATZ: I am authorized to give you that release, to give it to you on behalf of Bally Manufacturing.

THE WITNESS: Okay.

MR. HARDING: Recognizing the urgency to proceed on the patent and Bally's need to have cross-examination on the affidavit, I would be willing to stipulate to allow you to use the testimony subject, of course, to completion of the deposition, but not before we have our opportunity to cross-examine.

MR. KATZ: We have no intention of denying anyone an opportunity to examine this witness, whether it be called cross-examination or not.

MR. MEYERS: Will counsel stipulate to signature before any notary?

MR. KATZ: Yes.

MR. RIFKIN: Yes.

MR. HARDING: Yes.

MR. MEYERS: Counsel, I will provide you with a copy of the letter of September 14, 1979.

MR. KATZ: And you will consider advising us with respect to the other two?

MR. MEYERS: That's correct.

(At 5:10 p.m., the above deposition concluded.)

I, COLIN EDWIN LUTHER, deponent herein, do hereby certify and declare that the foregoing transcription to be my deposition in said action; that I have read, corrected and do hereby affix my signature to said deposition.

COLIN EDWIN LUTHER, Deponent

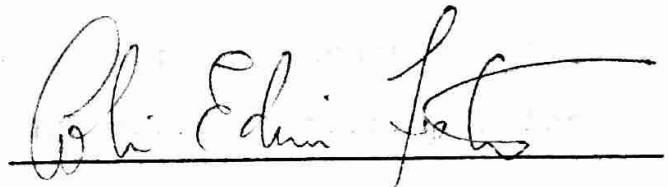
STATE OF MARYLAND
COUNTY OF BALTIMORE

Subscribed and sworn to before me this 14th day of September, 1979.

NOTARY PUBLIC

CERTIFICATE OF DEPONENT

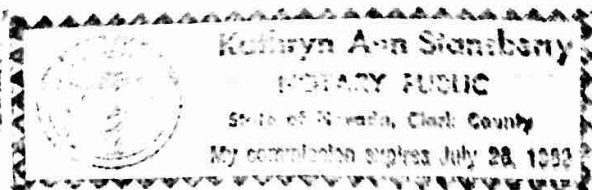
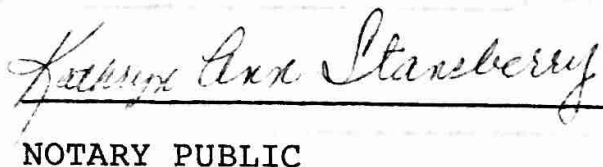
I, COLIN EDWIN FOSTER, deponent herein, do hereby certify and declare the within and foregoing transcription to be my deposition in said action; that I have read, corrected and do hereby affix my signature to said deposition.



COLIN EDWIN FOSTER, Deponent

STATE OF NEVADA)
: ss.
COUNTY OF CLARK)

Subscribed and sworn to before me this 25th day of October, 1979.

NOTARY PUBLIC

service manual for the Bally Alley game I designed. The Bally Alley game referred to on the first page of the Service Manual is the game which I designed and developed when I was employed by Bally.

5. To the best of my recollection, many of the drawings and circuit diagrams contained in the service manual, Exhibit A, are drawings that were either derived from sketches that I prepared when I was designing the BALLY ALLEY, e.g., the drawings on the service manual pages numbered 8, 9, 11, 25, 26, 27, 28, 36, 39, 40, 41 and 42, or are drawings I prepared, e.g., the two sheet drawing, which appears in the service manual as page 45 (which is a copy of one large sheet).

6. I recall the Bally Alley game, its operation, its construction, and its organization. The description of the Bally Alley game in the service manual, Exhibit A, is accurate, but is not complete. As indicated on page 6 of the service manual, that document does not describe the operation of the computer utilized to control the game nor does it totally explain how the computer interfaces with the various components or "sub-system elements which are not directly a part of the computer." The only meaningful disclosure of the computer control system in the service manual is page 45, the drawing I prepared.

7. Without previous knowledge of the Bally Alley game, it would be difficult and time consuming to obtain a clear understanding of the operation of the computer control of the Bally Alley game from the service manual, Exhibit A. In fact, except for the references in the service manual, Exhibit A, to a "computer," it would be extremely difficult to determine from the control board drawing, page 45, that a

programed microprocessor was even used. There is certainly no way to identify the microprocessor system that was employed.

8. The Bally Alley game uses a programmed Intel microprocessor system using a 4004 CPU and known as an MCS-4 system. The MCS-4 system includes the usual system components, such as read only memory (ROM) and random access memory (RAM) for storing programs and data. At the time I designed the Bally Alley game, MCS-4 systems were described in Intel's MCS-4 Microcomputer Set Manuals, such as the Users Manual dated March 1974 (Rev. 5), a copy of which, I am advised, has been filed in the U.S. Patent and Trademark Office.

9. The Bally Alley game has a number of input switches, including coin responsive switches (service manual pp. 23-26), player operated switches (service manual pp. 12-22), and a number of operator preset switches (service manual pp. 5-6). These switches, or the circuits connected thereto, are scanned sequentially, or multiplexed, to determine their status. This input information is processed by the computer which then produces appropriate output information for display and control of the play of the game.

10. In order to selectively sense the status of all of the input switches which exceed the number of available input lines to the microprocessor, it was necessary to utilize some technique for connecting the limited number of microprocessor input lines to the greater number of input switches and circuits.

11. The Bally Alley game also has a large number -- 198 -- of silicon controlled rectifier (SCR) devices controlled by the microprocessor system. The SCR's act as drivers for all display devices, i.e., lights and numerical digits, which

digits, which display various output information about the game, e.g., frame No., scores for each of 4 players, the identity of the player whose turn it is, indications of spares and strikes, number of credits, the number to be matched, identity of pins "knocked down" and "left up," as well as electronically simulating movement of the "ball" down the bowling lane.

12. In order to selectively energize this large number of output devices, which far exceed the number of available output lines from the microprocessor, it was necessary to utilize some technique for connecting the limited number of microprocessor output lines to the large number of output devices.

13. Based on my prior experience in working with computers for game control, including my general knowledge of multiplexing techniques that I had previously utilized, multiplexing appeared to me to be the most logical and expedient approach, the simplest and most straightforward technique that I was aware of at the time I was designing the Bally Alley game, for interfacing the numerous inputs and outputs to the microprocessor.

14. In summary, the Bally Alley Game includes circuitry which is programmed to multiplex the various input devices and circuits and the various output devices by sequentially and cyclically scanning them to enable inputs and outputs, greater in number than the number of input lines to the microprocessor system and output lines from the microprocessor system.

15. The two sheet drawing appended hereto as Exhibits B-1 and B-2 is a copy of the double size drawing, page

No. 45 from the service manual, Exhibit A. Certain of the lines have been highlighted in color to show how the status of the input circuits and switches, which are arranged in a matrix, are scanned or multiplexed sequentially to provide input information on the four input lines connected to input 34, Exhibit B-2.

16. In Exhibit B-2, the various preset switches are represented by the boxes 13, 15 and 17; the status of the player operated switches is represented by the inputs to the logic circuitry in boxes 5 and 6; and the status of the coin switches is represented by the inputs to the logic circuitry in box 48.

17. These circuits and switches are scanned or multiplexed by the output of a 1 of 16 decoder, box 26, which produces sequentially a series of column signals in response to a four bit output signal from the processor. (All shown in RED in Exhibits B-1 and B-2). The one line shown from decoder 26 represents the sixteen outputs, as indicated.

18. Different column lines, i.e., output lines from decoder 26, are connected to the circuits 13, 15, 17, 5, 6, and 48. Inputs appear on each of the four row lines (shown in GREEN, PINK, PURPLE and ORANGE) i.e., the four input lines to the processor in response to signals which appear sequentially on the respective column lines. Thus, as each of the column lines is sequentially energized or pulsed, data representing the status of the switches and the inputs to the circuitry which are connected to the one energized column line from decoder 26 appear on the four input lines (one in each row).

19. The two sheet drawing appended hereto as Exhibits C-1 and C-2 is another copy of the double size drawing, page No. 45 from the service manual, Exhibit A. The drawing appended hereto as Exhibit C-3 is a copy of the drawing, page No. 36 from the service manual, Exhibit A. The drawing appended hereto as Exhibit C-4 is a copy of the diagram appearing at the top of page No. 28 of the service manual, Exhibit A. Certain of the lines in these exhibits have been highlighted in color to illustrate how selected drive circuit elements, including the SCR's, arranged in a matrix, are cyclically and sequentially enabled, i.e., multiplexed.

20. Exhibit C-4 illustrates, as indicated therein, a typical drive circuit for energizing the displays and digits. These drive circuits are a plurality of sets of elements in a matrix.

21. The row lines of the matrix are the data output lines from the microprocessor (highlighted in BLUE, GREEN, PURPLE and BLACK in Exhibits C-1, C-3 and C-4) as well as the complement of the data output lines (highlighted in GOLD, PINK, ORANGE and PURPLE in Exhibits C-3 and C-4).

22. The column lines of the matrix are the sixteen outputs of the 1 of 16 decoder 4 (Exhibit C-3) which are produced sequentially and cyclically in response to the multiplex address signals (Exhibits C-1 or C-2) all of which are highlighted in RED.


23. Each of the logic circuitry identified in Exhibit C-3 by the numbers 9-29, inclusive, contain logic circuits corresponding to the NOR gate "C" illustrated in Exhibit C-4. In order to enable an SCR connected to the output of a NOR gate, there must be an appropriate input signal on the

"DATA INPUT A" line (Exhibit C-4), i.e., the proper row line, and there must be a similar signal on the "ADDRESS INPUT B" line, i.e., the column line.

24. Thus, as illustrated in Exhibit C-3, if SCR's Nos. 84, 85, 86 and/or 87 connected to the outputs of box 26 are to be enabled, there must be an appropriate signal on the row data input lines D3 (BLUE, ORANGE), D2 (GREEN, PINK), D1 (BLUE, GOLD) and D4 (BLACK, PURPLE), respectively, at the time a column signal appears on line logic 4 from the 1 of 16 decoder (box 4). The same data on row lines D1, D2, D3 and D4 occurring at a time when a signal appears on the output of decoder 4 representing logic 8, would enable SCR's 66, 65, 64 and 67, respectively, all connected to the outputs of box 25.

25. The "ball" or alley lamps are enabled or energized in a somewhat similar manner. For these lamps, however, there is one SCR drive circuit for each row of alley lamps and another SCR drive circuit for each column of alley lamps.

26. Exhibit C-3 illustrates each of two substantially identical interface boards. The most significant difference between the two boards, identified in the service manual as board "1 & 2" and board "3 & 4" is that each output of the 1 of 16 decoder 3 on board 1 & 2 enables an SCR for a row of alley lamps while each output of the 1 of 16 decoder 3 on board 3 & 4 enables an SCR for a column of alley lamps. Since each of the decoders 3 produces one output at a time, only one lamp in the alley lamp matrix is energized, that lamp is the one at the intersection of the row and the column connected to the respective output line of each of the decoders 3 on both of the interface boards on which an output appears.

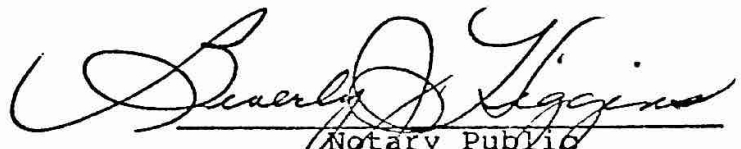


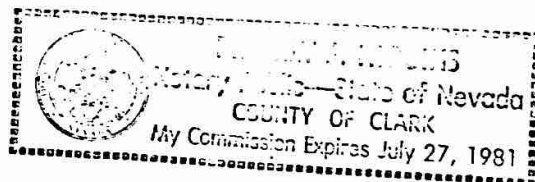
Serial No. 936,784 - - - - 8

27. The output from each of the decoders 3 is selected by simultaneously applying to the decoder 3 appropriate data signals on the row input lines D1, D2, D3 and D4 and a signal on the output line of decoder 2 representative of logic 15.


Colin E. Foster

Subscribed and sworn to before me this 15th day of
September, 1979.


Notary Public



PLAINTIFF'S
EXHIBIT

BD-100

DOCKETED 9-21-79

RECEIVED

TO CLIENT

SEP 20 1979

Colin E. Foster
Deposition
10-5-79

E. Ann
Quinn N.P.

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

UNITED STATES DISTRICT COURT

BALLY MANUFACTURING CORPORATION,

Plaintiff,

v.

D. GOTTLIEB & CO.,
WILLIAMS ELECTRONICS, INC.
and
ROCKWELL INTERNATIONAL CORPORATION,

Defendants.

CIVIL ACTION NO. 78 C 2246

and

BALLY MANUFACTURING CORPORATION,

Plaintiff,

v.

GAME PLAN, INCORPORATED and
ASTRO GAMES, INC.,

Defendants.

CIVIL ACTION NO. 79 C 713

NOTICE OF DEPOSITION

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PLEASE TAKE NOTICE that at 10 A.M. on the 5th day of October, 1979, at the offices of I.R. Ashleman, Valley Bank Plaza, 300 South Fourth Street, Suite 1505, Las Vegas, Nevada, plaintiff Bally Manufacturing Corporation will take the deposition of Colin E. Foster and Casino Electronics, Inc. by its president Colin E. Foster upon oral examination pursuant to the Federal Rules of Civil Procedure before a Notary Public or other officer authorized by law to administer oaths. Oral examination will continue from day to day until completed or when adjourned by Attorney for Plaintiff.

The witness is requested to bring to the deposition all documents and things listed in Exhibit A attached hereto.

You are invited to attend and cross-examine.

BALLY MANUFACTURING CORPORATION


Donald L. Welsh
A. Sidney Katz
Jerold B. Schnayer
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Chicago, Illinois 60603
(312) 372-7842
Firm ID No. 174

Attorneys for Plaintiff

September 20, 1979

EXHIBIT A

1. All documents which refer or relate to the design or development of the Bally Alley game.

2. All documents which refer or relate to the following lawsuits filed in the United States District Court For The Northern District Of Illinois Eastern Division:

BALLY MANUFACTURING CORPORATION v. D. GOTTLIEB & CO., et al. 78 C 2246; and

BALLY MANUFACTURING CORPORATION v. GAME PLAN, INCORPORATED, et al. 79 C 713

3. All documents which refer or relate to the patent in suit, United States Patent No. 4,093,232.

4. All documents which refer or relate to proceedings before the Patent and Trademark Office concerning Reissue Application Serial No. 936,784 (which is based on U.S. Patent No. 4,093,232).

5. All documents which relate to or form a basis for the Affidavit of Colin E. Foster of September 15, 1979, in the matter of Reissue Application Serial No. 936,784.

6. All documents regarding either the patent in suit, the above-listed lawsuits involving the patent in suit, or proceedings before the Patent and Trademark Office

concerning Reissue Application Serial No. 936,784 which refer or relate to communications between Colin E. Foster and/or any officer, employee, attorney, agent or representative of Casino Electronics, Inc., and any officer, employee, attorney, agent or other representative of the following: D. Gottlieb & Co., Williams Electronics, Inc., Rockwell International Corporation, Game Plan, Incorporated, Astro Games, Inc., A.E.S. Technology Systems, Inc., or Caesars Palace.

7. All documents which relate or refer to the design or development of any solid-state microprocessor-controlled game or amusement apparatus dated, prepared or originated prior to 1976.

CERTIFICATE OF SERVICE

I hereby certify that one copy of the foregoing
NOTICE OF DEPOSITION was served on each of the following by
mailing said copy, postage prepaid, this 20th day of September,
1979:

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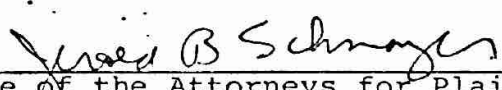

One of the Attorneys for Plaintiff
Bally Manufacturing Corporation

EXHIBIT A

1. All documents which refer or relate to the design or development of the Bally Alley game.

2. All documents which refer or relate to the following lawsuits filed in the United States District Court For The Northern District Of Illinois Eastern Division:

BALLY MANUFACTURING CORPORATION v. D. GOTTLIEB & CO., et al. 78 C 2246; and

BALLY MANUFACTURING CORPORATION v. GAME PLAN, INCORPORATED, et al. 79 C 713

3. All documents which refer or relate to the patent in suit, United States Patent No. 4,093,232.

4. All documents which refer or relate to proceedings before the Patent and Trademark Office concerning Reissue Application Serial No. 936,784 (which is based on U.S. Patent No. 4,093,232).

5. All documents which relate to or form a basis for the Affidavit of Colin E. Foster of September 15, 1979, in the matter of Reissue Application Serial No. 936,784.

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concerning Reissue Application Serial No. 936,784 which refer or relate to communications between Colin E. Foster and/or any officer, employee, attorney, agent or representative of Casino Electronics, Inc., and any officer, employee, attorney, agent or other representative of the following: D. Gottlieb & Co., Williams Electronics, Inc., Rockwell International Corporation, Game Plan, Incorporated, Astro Games, Inc., A.E.S. Technology Systems, Inc., or Caesars Palace.

7. All documents which relate or refer to the design or development of any solid-state microprocessor-controlled game or amusement apparatus dated, prepared or originated prior to 1976.